



0000108961

Application

E-01345A-03-0437

PART 2 OF 3

BAR CODE # 0000108961

**To review remaining parts please see
the following:**

PART 1 OF 3 BAR CODED #00000000701

PART 3 OF 3 BAR CODED #0000108962

2 of 2

E-01345A-03-0437

Testimony
of
Steven M. Wheeler

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DIRECT TESTIMONY OF STEVEN M. WHEELER

On Behalf of Arizona Public Service Company

Docket No. E-01345A-03-_____

E-01345A-03-0437

June 27, 2003

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1 **DIRECT TESTIMONY OF STEVEN M. WHEELER**
2 **ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY**
3 **(Docket No. E-01345A-03-____)**

4 I. **INTRODUCTION**

5 **Q. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.**

6 A. My name is Steven M. Wheeler. I am Senior Vice President, Regulation, System
7 Planning and Operations for Arizona Public Service Company ("APS" or
8 "Company"). In that role, I am responsible for all rate and regulatory matters
9 affecting the Company before the Arizona Corporation Commission
10 ("Commission") and the Federal Energy Regulatory Commission ("FERC"). I
11 am also responsible for the planning and operation of the APS transmission
12 system and for the Company's resource planning in general.

13 **Q. WHAT IS YOUR EDUCATIONAL AND PROFESSIONAL**
14 **BACKGROUND?**

15 A. I received a Bachelors degree from Princeton University in 1971. I graduated
16 from Cornell University School of Law in 1974. From 1974 until 2001, I was an
17 attorney with Snell & Wilmer LLP in Phoenix, Arizona, involved in general
18 business, real estate, environmental and public utility issues. During my 27 years
19 at the firm, I represented APS and other public utilities in numerous state and
20 FERC proceedings involving utility rate and service matters, generation and
21 transmission siting, electric industry restructuring, resource planning and
22 prudence reviews.

23 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS**
24 **PROCEEDING?**

25 A. My testimony will summarize the substance of and philosophy behind the
26 Company's rate request, with special attention to certain of the core issues that I

1 hope will prompt a positive Commission response in this proceeding. In this
2 regard, I will sponsor Schedules A-1 and D-4 of the Company's rate application.
3 I also provide a statistical overview of APS and identify some of the Company's
4 actions to maintain reliability, manage costs, improve efficiency, enhance
5 customer service, promote safety and corporate responsibility, and support
6 development of a competitive wholesale market in the Southwest. I further
7 explain how the Company has accomplished these goals while still protecting
8 APS customers from market uncertainties. Finally, I will discuss our
9 understanding of the role of APS in the aftermath of the Commission's "Track
10 A" Order, Decision No. 65154 (September 10, 2002).

11 **Q. HAS APS SUBMITTED DIRECT TESTIMONY IN SUPPORT OF ITS**
12 **APPLICATION?**

13 A. Yes. In addition to my testimony, APS has filed testimony by the following
14 witnesses in the following areas:

15 Donald G. Robinson:	Pro forma Adjustments and Financial Results
16 Ajit P. Bhatti:	Pinnacle West Energy Corporation ("PWEC") Assets
17 Chris N. Froggatt:	Cost of Capital, Accounting Issues and Total 18 Working Capital
19 Laura L. Rockenberger:	Depreciation Study, Reconstruction Cost New 20 (less) Depreciation ("RCND") Study and Lead/Lag Study
21 Alan Propper:	Cost of Service Study and Rate Design
22 David J. Rumolo:	Service Schedule Changes
23 Dr. William H. Hieronymus:	PWEC Assets
24 Dr. John H. Landon :	Evaluation of Wholesale Market Conditions
25 Dr. Charles E. Olson:	Cost of Equity
26 Dr. Kenneth Gordon:	Regulatory Policy and Vertical Integration

1 II. SUMMARY

2 Q. **WOULD YOU PLEASE SUMMARIZE YOUR DIRECT TESTIMONY?**

3 A. After more than a decade of rate reductions totaling some \$ 1.74 billion, APS is
4 compelled to seek higher revenues beginning in the third quarter of 2004. The
5 requested 9.8% increase, or approximately \$175 million on an annual basis, will,
6 if granted, still leave APS rates below the level they were in 1989. In that same
7 period, general inflation has increased the prices of other goods and services by
8 some 51%. Although we all wish that lower and lower rates could continue
9 indefinitely, we also know that to be an unreasonable and unrealistic scenario.
10 The requested increase is necessary if APS is to continue as the type of
11 financially strong utility that can ensure APS customers continued reliable
12 service, on demand, and at reasonable prices into the future.

13 APS has based its rate request on a historical test period, calendar year 2002,
14 and a cost of common equity of 11.5%. The use of such a test year is consistent
15 with Commission rules and regulations, and the cost of equity is at the midpoint
16 of the range found reasonable by Dr. Olson, the Company's cost of capital
17 expert. For APS to recover its cost-of-capital, it must receive a fair rate of return
18 of 6.67% on a fair value rate base of \$5,467,466,000.

19
20 APS has made various adjustments, both up and down, to that test period. These
21 adjustments will make the historical test period more representative of both a
22 "typical" year and of the period in which the new rates authorized by the
23 Commission will take effect.

24 Perhaps the most significant of those adjustments is the reflection of the very
25 substantial increases APS has experienced in the cost of fuel, especially natural
26

1 gas, and purchased power from other utilities and unregulated merchant power
2 entities. These two categories of cost have been increasing throughout most of
3 the period since the comprehensive settlement agreement between the Company
4 and the Commission in 1999 ("1999 Settlement"). That 1999 Settlement resulted
5 in the past five rate decreases implemented by APS, the last of which will take
6 effect on July 1, 2003.

7 APS is also seeking to restore the \$234 million write-off of prudently-incurred
8 costs that resulted from the 1999 Settlement, as well as the full cost of preparing
9 to divest its generation in conformance with both the 1999 Settlement and the
10 Commission's Electric Competition Rules. With the Commission's decision
11 modifying the terms of the 1999 Settlement, it is only fair that APS be fully
12 compensated for its detrimental reliance.

13
14 Another issue presented in this proceeding is the Company's request to include
15 certain PWEC generating assets into the APS rate base at cost-of-service. Those
16 assets were prudently constructed to serve APS, have done so, and will be "used
17 and useful" in providing service to the Company's customers in the future. Thus,
18 I believe they are entitled to cost-of-service rate treatment under traditional
19 criteria previously established by this Commission. Their construction by PWEC
20 (rather than at APS) was necessary because of regulatory restrictions imposed
21 on the Company, and their unification at APS serves to address one of most
22 significant adverse consequences of the Track A Order. That Order prevented
23 the Commission-mandated divestiture of APS generation to PWEC, which
24 divestiture had been the fundamental reason for PWEC's existence and the basis
25 upon which PWEC had undertaken the task of assuring the availability of
26 reasonably-priced generation for APS customers. Along with reversal of the

1 1999 Settlement's \$234 million write-off, rate basing the PWEC assets will
2 significantly mitigate the unaddressed impacts resulting from that Order.

3 Rate basing the PWEC generation also helps to answer, in a positive and
4 constructive manner, two critical questions insufficiently resolved by recent
5 regulatory actions of the Commission and the Legislature: who is responsible for
6 assuring reliable supplies of electricity to APS customers, and what are the
7 permitted structures and means by which that obligation should be discharged?
8 APS believes that its track record as a vertically-integrated utility—one with the
9 ability to build, buy, or otherwise acquire resources that are thereafter recovered
10 in rates based on their cost-of-service—provides a model that best fits Arizona's
11 current circumstances and yet is consistent with the future development of the
12 wholesale market. Such a structure also best serves and protects the reliability
13 interests of APS customers. The wisdom of this model was recently reinforced
14 by the results of the Commission's Track B solicitation, which demonstrated
15 that the competitive market is as of yet too immature to assume the prominent
16 role originally envisioned by the Electric Competition Rules and cannot be
17 relied upon to reasonably meet APS customers' needs at all times and under all
18 market conditions. Any Commission decision in this Docket should be
19 consistent with maintaining and supporting the integration within APS of the
20 generation necessary to serve APS customers.

21
22 APS is Arizona's largest electric utility. It has committed itself to the goals of
23 reliability, value and customer service. The Company has taken many steps to
24 further these goals and has been successful in achieving them. APS has
25 accomplished this during the most difficult times in the history of the electric
26 industry and in the face of unprecedented challenges created by Arizona's rapid

1 growth. At the same time, APS has coped with changing regulatory regimes and
2 the often-conflicting demands placed upon it by regulators. Yet, the Company
3 has maintained its focus on customers, employees and public service.

4 Finally, APS has submitted its recently executed Track B power agreement with
5 PWEC for Commission review as required by Section 3.4 of such agreement.
6 Although promptly rate basing the PWEC assets essentially eliminates the need
7 for the Commission to approve the contract and provide assurance of its future
8 rate recovery, APS is making this filing to protect its rights under the PWEC
9 contract, which is critical to meeting the needs of APS customers pending the
10 Commission's consideration of the Company's rate request.
11

12 III. DESCRIPTION OF THE APS RATE REQUEST

13 A. *Nature of the Request*

14 Q. **WOULD YOU PLEASE SUMMARIZE THE COMPANY'S REVENUE REQUEST?**

15 A. APS is seeking to increase rates by some \$175 million, or 9.8% on average,
16 based on annualized test period sales. This produces a 6.67% return on the
17 Company's fair value rate base of \$5,467,466,000. See Schedule A-1 to the
18 Application. Such return is equal to APS' cost-of-capital (expressed in terms of
19 return on original cost rate base) of 8.67%. Consistent with Commission practice
20 for many years, fair value rate base is simply the arithmetic average of original
21 cost rate base and reconstruction cost new rate base. These two calculations are
22 themselves sponsored by Mr. Robinson, Mr. Froggatt and Ms. Rockenberger.
23

24 APS has assigned the proposed increase on an equal percentage basis to all of
25 the Company's major customer classes. However, specific rate schedules may
26

1 receive greater or lesser increases and individual customers will experience
2 larger or smaller impacts based on their individual circumstances.

3 The revenue requirement incorporates the Company's latest cost of capital. That
4 cost of capital is, in turn, premised on an 11.5% cost of common equity, which
5 is the mid-point of Dr. Olson's recommendation.
6

7 Other major components of the Company's rate filing include:

- 8 • the incorporation in rates of significant increases in fuel and purchased
9 power costs, including the results of the recent purchases through the
Commission's Track B process;
- 10 • the acquisition and rate basing of PWEC generation assets; and
- 11 • the recovery of amounts previously written off by APS in compliance
12 with the terms of the 1999 Settlement, which settlement was thereafter
modified by the Track A Order.

13 These latter two issues are closely linked to the need to address the consequences
14 of the Commission's change of direction in the Track A Order and to bring some
15 final closure to the 1999 Settlement. I will address in more detail all three of the
16 above issues later in my testimony.

17 APS is requesting that its rate request become effective July 1, 2004. APS is also
18 requesting the Commission approve new depreciation and amortization rates for
19 certain of the Company's tangible and intangible property and to approve a
20 specific accounting and ratemaking treatment of Statement of Financial
21 Accounting Standards ("SFAS") No. 143 costs. Ms. Rockenberger discusses
22 these specific requests in her direct testimony, and I will not further address
23 these issues.

24 *B. Philosophy of the Request*

25 **Q. WHAT IS APS' OVERALL GOAL IN THESE RATE PROCEEDINGS?**
26

1 A. APS asks that the Commission establish rates in this proceeding that will allow
2 the Company to have the financial integrity to continue its record of providing
3 both current and future customers the reliability, reasonable prices, and customer
4 service to which they are entitled. To achieve this, APS must be given a
5 reasonable opportunity to earn, on a consistent basis, a fair return on the
6 property and investment it has devoted to public service—a return that will
7 enable APS to attract capital, both debt and equity, on reasonable terms to
8 finance future expansion, replacement and technological innovation, and a
9 return commensurate with businesses of comparable risk.

10 Please note that I have purposely intertwined three critical concepts into my
11 statement of the Company's goals. Each is equally important, each is
12 inseparable from the others, and each depends upon a combination of
13 managerial skill and commitment with regulatory support for the achievement of
14 these goals.

15
16 The first concept is that of "reliable service." To customers this often means
17 nothing more than unquestioned confidence that the lights will go on when they
18 throw the switch. To APS, however, "reliability" requires long-range planning,
19 the right mix of generating resources, robust delivery infrastructure, and
20 responsive customer service. It involves the integration of new technologies
21 with time-tested processes, quality construction and maintenance of facilities,
22 and skillful operation of a complicated and interdependent system. And all of
23 this must be accomplished in a manner that promotes a safe working
24 environment for APS employees and for APS customers, and which is in
25 compliance with all relevant state and federal laws.

1 The definition of "reasonable prices" is more subjective. It cannot be
2 conveniently "benchmarked" against the prices charged by other entities under
3 dissimilar circumstances. It is also independent of what individual customers
4 would be willing or can afford to pay for electric service. Rather, under
5 Arizona's traditional regulatory principles, APS must be able to recover its
6 reasonable costs of providing service.

7
8 The third concept embodies the Company's obligation to stand ready to serve
9 both existing and future customers. Unlike competitive enterprises, which are
10 free to enter and exit markets as they wish, or limit their participation in the
11 market to selected customers and lines of business, the Commission expects and
12 requires APS to be ready and willing to serve all customers within its authorized
13 service territory both today and for the indefinite future. Thus, the
14 Commission's approved prices, terms and conditions of service represent a
15 unilateral and irrevocable offer on the part of the Company to serve all within
16 that territory, present and future, which apply for such service. That sort of
17 obligation requires the Company to remain financially healthy, flexible and able
18 to respond to changing conditions and the demands of a growing Valley and
19 state.

20 *C. Key Issues*

21 **Q. WHAT ARE THE KEY DRIVERS BEHIND THE NEED TO RAISE
22 RATES FOR THE FIRST TIME SINCE 1991?**

23 **A.** There are several. Clearly fuel and purchased power costs have increased very
24 significantly over the levels reflected in current APS rates. Second, APS is
25 proposing to include PWEC's generating assets in rates at cost-of-service.
26 Although this addition to the Company's rate base is more than offset by the
complete amortization of most of the Company's regulatory assets, as well as

1 the off-system sales, fuel and purchased power savings and tax benefits
2 produced by these units, the role of the PWEC assets and their ratemaking
3 treatment present major issues that must be resolved in this proceeding. Third,
4 APS is asking to recover the \$234 million write-off in 1999 of prudent costs
5 incurred by APS under terms of the 1999 Settlement and the additional costs
6 incurred by APS to comply with the Commission's Electric Competition Rules.

7
8 **Q. COULD YOU ADDRESS EACH OF THESE ISSUES IN MORE DETAIL?**

9 A. Yes, although Mr. Robinson is specifically responsible for the pro forma
10 adjustments that measure the revenue requirements impact of each of the above
11 elements to the Company's rate filing.

12 **1. Fuel and Purchased Power**

13 **Q. HAVE APS FUEL AND PURCHASED POWER COSTS INCREASED SINCE THE TEST PERIOD USED FOR THE 1999 SETTLEMENT?**

14 A. Yes. Since 1996, which was the test period used for purposes of the 1999
15 Settlement, APS annual fuel and purchased power costs have increased by some
16 \$300 million through the end of 2002. And although increases or decreases in
17 such costs will be handled by APS' currently pending power supply adjuster
18 ("PSA") mechanism after June 30, 2004, just bringing up the base allowance for
19 these costs to better reflect current levels both for sales and prices has increased
20 APS costs by \$121 million over those recorded during the 2002 test period. This
21 accounts for the majority of the requested revenue increase.

22
23 **Q. COULD YOU EXPLAIN THE REASONS FOR THESE DRAMATIC INCREASES?**

24 A. As was discussed at great length during the PSA hearing in April of 2003, rapid
25 load growth has left APS increasingly dependent upon purchased power and gas
26 generation to meet the needs of its customers. These particular components of

1 the Company's energy supply mix have been extremely volatile. For example,
2 APS' average delivered cost of gas has increased by 68% just since the end of
3 the test period. Because gas is the marginal fuel for electric generation during
4 most times of the year, higher gas prices almost always translate into higher
5 purchased power prices. This in large part explains the 63% change in purchased
6 power prices, although part of that increase is also related to the higher per kW
7 investment cost of new merchant generation compared to the older, depreciated
8 generation costs embodied in current APS rates.

9 Another factor, ironically, has been the Company's own success in managing
10 these costs. As I will discuss later in my testimony, APS' largely coal and
11 nuclear-based energy generation has kept APS fuel costs at relatively low levels
12 for many years. However, these base-load units have pretty much exhausted
13 their ability to produce any additional amounts of energy, making almost all of
14 the Company's marginal growth in energy sales come from the volatile gas fuel
15 and purchased power markets.

16 2. Inclusion of the PWEC Assets in APS Rate Base

17 **Q. IS APS SEEKING TO INCLUDE CERTAIN OF PWEC'S GENERATION**
18 **IN ITS FAIR VALUE RATE BASE?**

19 A. Yes. If the Commission agrees that Redhawk Units 1 and 2 ("Redhawk-1" and
20 "Redhawk-2"), West Phoenix Combined Cycle Units 4 and 5 ("West Phoenix-
21 4" and "West Phoenix-5"), and Saguaro Combustion Turbine Unit 3 ("Saguaro
22 CT-3") should be included in the Company's rates at their full cost-of-service,
23 APS will acquire those units from PWEC at their then depreciated book value.
24 Upon acquisition, the existing contract between APS and PWEC would be
25 terminated—a transaction akin to converting a short-term summer lease into
26 year-round perpetual ownership. Because it is not anticipated that the

1 Commission will rule on this request until the end of the second quarter in 2004,
2 APS has included the PWEC assets in its proposed rate base at their projected
3 June 30, 2004 book value. That is some \$73.4 million less than the original cost
4 to PWEC of constructing those plants as a result of the accumulated depreciation
5 from their in-service dates through June 30, 2004. Over the remaining life of
6 these same PWEC assets, that reduction in the Company's acquisition cost will
7 save APS customers approximately \$ 214 million in future revenue requirements
8 using the Company's proposed cost-of-capital. If I were to factor in the impact
9 of deferred income taxes, which also reduce the book value of the PWEC assets,
10 the savings would be even greater. And, as compared to the cost of APS
11 constructing new generation assets in 2004 of comparable size and type, life
12 cycle savings increase to nearly \$500 million.

13 **Q. WHY IS APS MAKING THIS PARTICULAR REQUEST?**

14 **A.** The reasons are basically three-fold:

- 15 • The PWEC assets are essential to serve APS customers. They are
16 "used and useful" by any reasonable definition of the term and
17 for a variety of reliability-related, economic, and operational
18 reasons;
- 19 • Both the past behavior of the wholesale market and the
20 Company's future expectations concerning that market support a
21 resource plan that relies on regulated utility generation for a large
22 portion of customer needs as a hedge against both extreme but
23 expected market volatility and unanticipated market blowouts;
24 and
- 25 • Combining the PWEC generation with existing APS generation
26 fulfills a basic objective of the 1999 Settlement that was left
unaddressed by the Commission's Track A Order and promotes
the continued vertical integration of APS, both of which are
beneficial to APS customers and equitable to APS and its
affiliates.

25 **Q. WOULD YOU ELABORATE ON EACH OF THESE POINTS?**

1 A. Yes. Let me address them separately.

2 I do not intend to duplicate the analyses presented by both Mr. Bhatti and Dr.
3 Hieronymus concerning the planning, necessity, benefits and economics of the
4 PWEC generation. Suffice it to say that the PWEC generation:

- 5 • Provides needed capacity to meet the peak demands of APS
6 customers;
- 7 • Provides substantial energy throughout the year to meet those same
8 needs;
- 9 • Provides critical local generation within the Valley during "must-
10 run" periods of the year;
- 11 • Provides opportunities for off-system sales that can reduce overall
12 revenue requirements;
- 13 • Hedges market risk;
- 14 • Displaces older, less efficient and less economical resources in the
15 APS dispatch order;
- 16 • Provides additional fuel diversity to APS' existing heavily coal and
17 nuclear generation mix; and
- 18 • Promotes continued vertical integration of APS, as envisioned by the
19 Commission's Track A Order, and the attendant advantages thereof
20 discussed by Dr. Landon and Dr. Gordon.

21 I must also point out that those Western utilities that depended on the vagaries of
22 the wholesale market in 2000 and 2001 are still digging themselves out of a
23 mountain of debt and facing huge future purchase power obligations. Those
24 utilities such as APS that are now dependent on that market (even with the
25 PWEC generation) are faced with potential counter-parties having little or no
26 creditworthiness, an uncertain national regulatory policy, and an increasing
paucity of risk-mitigating hedging opportunities. Although some may believe
the years of market excesses to be an aberration or the result of market
manipulation, while our present situation of market disintegration is only

1 temporary, I think it is more likely to be merely the first cycle of "boom and
2 bust" discussed in Dr. Hieronymus' testimony.

3 The Company's own experience in the recent Track B solicitation underscores
4 my concerns. Without PWEC's bids, APS did not receive enough offers of
5 power to meet even this summer's expected peak. Offers of power for delivery
6 after 2005 were virtually non-existent. This was not the fault of APS, the
7 Commission, or the merchant community, but underscores the essential
8 difference between a vertically-integrated utility's obligation and ability to plan
9 for and provide for the resources needed to assure reliability and the market's
10 concern for profit maximization. And it is consistent with both Dr. Hieronymus'
11 and Mr. Bhatti's conclusions as to an impending "boom" in the generation
12 market, which could well be a "bust" for APS customers without the price hedge
13 that the PWEC assets can provide.

14
15 In the case of the Valley's local generation needs, the absence of bids was not
16 surprising because only PWEC has built new generation within the Valley that is
17 available to APS. And it is unlikely that even if others constructed resources
18 there in the future that they could compete successfully on a cost basis against
19 established and already well-depreciated facilities such as West Phoenix-4 and
20 West Phoenix-5.

21 But even aside from these reliability, economic and risk management arguments
22 for rate base treatment of the PWEC generation, there are a second group of
23 arguments for such regulatory action that I collectively refer to as "equitable
24 considerations." Although these are not the conventional reasons presented by
25 the Company in support of rate base inclusion during past Commission
26

1 proceedings, the past few years have hardly been "conventional" in any sense of
2 that word.

3 APS and its affiliates made concessions of considerable value and have relied in
4 good faith to their ultimate detriment on the restructuring requirements of the
5 Electric Competition Rules and the promises of the 1999 Settlement. Under
6 both, PWEC (an entity created in reliance on and in conformance with the
7 Electric Competition Rules and the 1999 Settlement) was entitled to receive all
8 of the Company's existing generation, and the Commission made specific
9 findings that such a transaction would be in the public interest. This was hardly
10 surprising because it was the Commission's directive in the Electric Competition
11 Rules that mandated divestiture, a position APS opposed and challenged in court
12 until its challenge was withdrawn as part of the 1999 Settlement's attempt to
13 implement the Commission's then restructuring vision. The combination of APS
14 generation and the new generation constructed at PWEC to serve APS would
15 have provided PWEC a fuel-diverse and highly competitive portfolio of assets
16 under a single, investment-grade financial umbrella and a common regulatory
17 regime. And PWEC would have had enough "critical mass" to survive in an
18 industry dominated by far larger generating companies. This also would have
19 benefited APS because under normal market conditions, that portfolio could
20 easily compete for as much of APS needs as APS and this Commission found to
21 be prudent. During times of market excess, whether they are caused by
22 manipulation or the sort of natural "boom/bust" commodity cycles discussed by
23 Dr. Hieronymus, the combined APS/PWEC assets would still be available to
24 assure APS customers of reliable service.
25
26

1 The Track A Order left the PWEC assets cut off from the Company's generation
2 This problem is accentuated by the increasingly onerous affiliate restrictions
3 placed on interactions between the two generation "halves" of Pinnacle West by
4 this Commission—restrictions that also are directly contrary to the terms of the
5 1999 Settlement. Rate basing the PWEC assets will restore the unity of purpose,
6 economies of scale and scope, and commonality of regulatory treatment that
7 APS sought from the beginning in the 1999 Settlement and for which it gave up
8 so much.

9
10 **Q. DOES NOT APS ALREADY HAVE SOME OF THE BENEFITS FROM**
11 **THE PWEC ASSETS BY VIRTUE OF THE RECENTLY AWARDED**
12 **TRACK B CONTRACT WITH PWEC?**

13 A. Yes, but only partially and only through 2006, which is just about when many
14 experts, including the Company's, expect those benefits to become far more
15 valuable to APS customers. Under the recently awarded Track B contract with
16 PWEC, APS has no rights to the PWEC units except during the months of June
17 through September, thus missing out on many of the opportunities for off-
18 system sales margins and for economic displacement of other less efficient
19 generation resources or of higher priced purchased power. Also, APS has
20 reliability needs even in non-summer months when faced with major outages of
21 APS-owned generation, such as this fall's replacement of a steam generator at
22 the Palo Verde Nuclear Generating Station ("Palo Verde"). Finally, the Track B
23 contract does not solve the problem of having the generation constructed to
24 serve APS bifurcated into two entities, one regulated by the Commission as a
25 public service corporation and the other not, with separate financial structures,
26 and with separate objectives and responsibilities.

1 Q. **WHY SHOULD THE PWEC ASSETS BE RATE BASED AT THEIR 2004**
2 **BOOK VALUE?**

3 A. But for the prohibition imposed by the Electric Competition Rules, the PWEC
4 assets would have been constructed by APS just as have other generating units
5 over the years. The Commission has repeatedly held that APS-owned generation
6 is subject to regulation on the basis of cost-of-service, rather than on
7 reconstruction cost, a constantly-changing market value, or some other selective,
8 retrospective or opportunistic basis. These alternative valuation methods are
9 even more suspect if they are the products of a dysfunctional market or, as Dr.
10 Hieronymus discusses, fail to adequately capture such a market's inherent
11 volatility.

12 The issue, therefore, is simply whether the PWEC generation represented a
13 prudent investment by Pinnacle West to assure reliable APS service at the time
14 it was made and given the circumstances presented APS by the Electric
15 Competition Rules. Stated another way, if the investment will be devoted to
16 public service and was reasonable when made, it should be included in the
17 Company's rate base and earn a return that is not less than the cost-of-capital.
18 Although Staff made no prejudgment on the ultimate merits of the Company's
19 rate base request, this was precisely the point that APS and Staff were
20 referencing in the December 13, 2002 "Principles for Resolution," which Staff
21 filed in Docket No. E-01345A-02-0707:

22 The Parties [APS and Staff] expressly recognize that the
23 Commission will consider prudence, used and usefulness, and
24 reasonable operating costs in the course of considering rate base
25 treatment for the assets.

26 Principles of Resolution at 2.

1 Q. CAN'T THE COMMISSION AT LEAST PUT THIS ISSUE OFF UNTIL A
2 SUBSEQUENT PROCEEDING SINCE THE PWEC UNITS ARE
3 POTENTIALLY UNDER CONTRACT FOR THE MOST CRITICAL
4 MONTHS OF THE YEAR THROUGH 2006?

5 A. No. Just as APS is short on capacity and energy after 2003, PWEC will be long
6 on those commodities (*i.e.*, it will have surplus to sell) and presently unhedged
7 through forward sales because of the dedication of these assets to APS from
8 their earliest planning. PWEC will have to sell forward a significant amount,
9 perhaps all, of its resources during the eight months of the year not presently
10 under contract with APS pending a rate base determination. And neither APS
11 nor the Commission can reasonably expect PWEC to continue to hold any of its
12 capacity and energy in reserve for APS and its customers, if its undertaking to
13 provide long term reliability to APS at cost has been rejected, not once (in the
14 2001 PPA filing), but twice (in this proceeding). This would leave the Company
15 either wholly dependent upon what the Commission itself has characterized as a
16 "dysfunctional" wholesale market at the likely beginning point of a new boom
17 or in the unenviable position of having to construct additional new capacity
18 itself by 2007 just to replace the less-expensive depreciated PWEC assets
19 offered at cost in this proceeding.

20 Even in the Track A Order, the Commission recognized that this present rate
21 case was the occasion to decide, once and for all, the fate of the PWEC
22 generation constructed to serve APS. The Track B contract gives APS some
23 assurance that it can keep the lights on until that decision is made. But the rate
24 base request is on the table now and should be either timely accepted or,
25 alternatively, rejected in no uncertain terms such that both the Company and
26 PWEC can pursue other alternatives.

1 3. **Reversal of the \$234 Million Write-Off from 1999 and the**
2 **Recovery of Competition Rules Compliance Costs**

3 **Q. WHY IS APS SEEKING TO RECOVER THE \$234 MILLION IN WRITE-**
4 **OFFS IT TOOK UNDER THE 1999 SETTLEMENT?**

5 A. APS took more than \$234 million in write-offs under the 1999 Settlement, as I
6 will discuss later in this section of my testimony. However, this particular write-
7 off related directly to past costs already found just and reasonable by the
8 Commission, rather than what in 1999 were largely the future costs of
9 compliance with the Electric Competition Rules.

10 **Q. DID THE \$234 MILLION RELATE TO THE CALCULATION OF**
11 **STRANDED COSTS?**

12 A. Yes, but the restoration of that write-off has nothing to do with the actual level
13 of stranded costs either incurred by the Company or collected in rates from
14 customers seeking Direct Access. What is relevant now is that if APS had not
15 written off this \$234 million, it would have continued to recover that amount in
16 rates during the years 1999 through 2004.

17 **Q. PLEASE EXPLAIN FURTHER.**

18 A. Under both the Electric Competition Rules and a Commission order entered in
19 1998 [Decision No. 60977 (June 22, 1998)], APS was entitled to recover 100%
20 of its "Stranded Costs." Stranded costs referred to the difference between the
21 regulated cost of service for competitive electric assets, in this case generation,
22 and what was then believed to be their market value. Please note that recovery
23 of stranded costs would not have provided APS one nickel more than the
24 Company already was entitled to under then existing law. And unlike utilities in
25 other parts of the country or even in Arizona, APS did not request the ability to
26 recover those prudently incurred costs on an accelerated schedule. Rather, they

1 were collected at precisely the same rate and in the same manner as would have
2 occurred absent the Electric Competition Rules. Indeed, for Standard Offer
3 customers, what was termed the "Competition Transition Charge" ("CTC") was
4 merely subsumed in the cost-of-service established under traditional Arizona
5 regulatory principles and had absolutely zero impact on either Standard Offer
6 customer rates or the Company, except in the following respects.

7
8 The first and far more significant of these impacts was that APS agreed to
9 absorb or write-off, on a present value basis, \$183 million of its just and
10 reasonable cost of providing service for the period ending December 31, 2004.
11 Undiscounted, that present value figure accounted for the \$234 million write-off
12 APS took to regulatory assets otherwise recoverable in rates.

13 Second, APS actually did collect somewhat less than \$1 million in CTC charges
14 from the handful of APS customers that have pursued direct access since 1999.
15 That small amount of both stranded costs and stranded cost recovery has been
16 credited against the Company's deferred Electric Competition Rules compliance
17 costs, as called for under terms of the 1999 Settlement.

18
19 **Q. WHY WOULD APS AGREE TO GIVE UP RECOVERY OF \$234**
20 **MILLION IN COSTS IT WAS ALREADY ENTITLED TO RECOVER**
21 **UNDER THE ELECTRIC COMPETITION RULES AND A PRIOR**
22 **ORDER OF THE COMMISSION?**

23 A. The 1999 Settlement was just that, a settlement. It was entered into at the
24 express urging of the Commission, and APS made significant concessions in
25 direct reliance on the Commission's fulfillment of its own commitments under
26 the Settlement and in order to facilitate the transition to the Commission's then
vision of competition while minimizing the damage to the Company. One of the
primary aspects of the Company's damage mitigation efforts was the ability to

1 divest APS generation to an affiliate, PWEC, rather than to an unrelated entity
2 as had originally been proposed by Commission Staff. PWEC was thereafter to
3 be treated by the Commission no differently than other wholesale generators in
4 Arizona. Obviously, neither aspect of that objective has been or will be realized
5 in light of the Track A and Track B Orders. Nor does APS seek to take back the
6 rate decreases it previously agreed to in exchange for the 1999 Settlement. That
7 being the case, a significant restoration to the Company's pre-Settlement
8 position can be accomplished by allowing APS to reverse this write-off in
9 conjunction with the rate basing of the PWEC generation.

10
11 **Q. IF THE \$234 MILLION WAS TAKEN AWAY FROM THE COMPANY'S**
12 **REASONABLE AND PRUDENT COSTS OF PROVIDING SERVICE**
13 **THROUGH YEAR-END 2004, WHY IS THE COMPANY PROPOSING**
14 **TO RESTORE IT OVER THE MUCH LONGER PERIOD OF 15**
15 **YEARS?**

16
17 **A.** This was done to mitigate customer impacts, while still allowing APS partial
18 recovery for its detrimental reliance on the 1999 Settlement.

19
20 **Q. PLEASE DISCUSS WHY APS IS SEEKING TO RECOVER ELECTRIC**
21 **COMPETITION RULES COMPLIANCE COSTS IT HAS PREVIOUSLY**
22 **EXPENSED.**

23 **A.** Most of those costs are described by Mr. Robinson, and I will try not to
24 duplicate his efforts. I will focus on the one-third of divestiture related costs that
25 APS was required to forego under the terms of Decision No. 61973 (October 6,
26 1999), which Decision approved and adopted the 1999 Settlement.

Decision No. 61973 made it clear that this was the "price" for APS divesting its
assets as it wished and when it wished, although the Commission itself had
already mandated such disposition. As noted in response to an earlier question,

1 that "sale" never was consummated through no fault of APS, and not
2 surprisingly, APS is requesting its "earnest money" back.

3
4 **Q. IF THESE THREE ISSUES ARE RESOLVED IN THE MANNER**
5 **REQUESTED BY THE COMPANY, DOES THIS MEAN THAT APS**
6 **WILL HAVE RECOVERED EVERYTHING IT OR ITS AFFILIATES**
7 **GAVE UP IN THE 1999 SETTLEMENT?**

8 **A.** No. APS is still out hundreds of millions of dollars in revenue on account of the
9 rate decreases given between 1999 and 2003. Pinnacle West has incurred and
10 will continue to incur millions of dollars in higher financing costs related to
11 constructing the PWEC units. Moreover, PWEC will never recoup its increased
12 costs from its failure to receive APS generation or the foregone revenues from
13 its decision to not sell the PWEC assets into the California market and, instead,
14 use them to protect APS customers.

15 **IV. FUTURE ROLE OF APS**

16 **Q. DO THE ELECTRIC COMPETITION RULES, AS MODIFIED BY THE**
17 **TRACK A AND B ORDERS, ALONG WITH THE RELEVANT**
18 **PORTIONS OF THE LEGISLATURE'S 1998 ARIZONA COMPETITION**
19 **ACT (HB2663), PROVIDE A CLEAR, COMPREHENSIVE AND**
20 **CONSISTENT ARTICULATION OF WHAT IS EXPECTED FOR**
21 **ELECTRIC UTILITIES SUCH AS APS?**

22 **A.** No. APS believes that there has been no clear articulation of its future role and
23 responsibilities, the means by which the Company can meet those
24 responsibilities, or how the Commission will evaluate the Company's actions in
25 that regard. In addition, the Company seemingly is asked to bear multiple and to
26 some degree, contradictory obligations and to further sometimes mutually
exclusive goals.

It is clear after the Track A Order that Arizona is no longer pursuing the
restructuring model represented by the Electric Competition Rules. Under that

1 model, APS would have been essentially a "wires-only" Utility Distribution
2 Company ("UDC") with a continuing obligation to provide reliable service to its
3 customers, but little or no generation other than what it could purchase from the
4 wholesale electric market. A major flaw with that scenario was that the means
5 by which APS could fulfill that obligation were severely limited by the
6 prohibition against utility ownership of generation, vague power procurement
7 rules, affiliate restrictions, and cost recovery uncertainty. At the same time,
8 those having the expected ability to assure a reliable supply of power for APS
9 customers, i.e., the wholesale merchant generators, had neither the legal
10 obligation to provide that reliability nor anything to fear from this Commission
11 should they fail to do so.

12 Thus, the Electric Competition Rules created a "reliability gap" that was largely
13 overlooked. This was equally true of HB 2663, which became the Electric
14 Competition Act. Although A.R.S. § 40-360.02 was amended to include a
15 provision calling for a biennial review by the Commission of transmission
16 adequacy, there was no analogous provision for dealing with generation supply
17 or the integration of the generation supply with the transmission grid. In
18 addition, the Commission's own Integrated Resource Planning regulations had
19 been suspended with no successor mechanism established to evaluate, let alone
20 address, the State's future reliability needs. Perhaps this lack of focus on
21 reliability was because of this State's history during the 1980s and 1990s of
22 always having more than sufficient utility generation, such that reliability had
23 never been much of a concern. Also, in 1999, the wholesale markets appeared
24 relatively stable and largely of concern only to FERC, which then as now
25 maintained exclusive jurisdiction over that market.
26

1 Whatever the reason, the Company never lost its focus on the problem nor did it
2 have the luxury of depending on an amorphous and unaccountable entity called
3 "the market" to satisfy what has been its historical mandate to maintain and
4 protect reliable service to customers. Thus, despite a requirement that APS
5 divest all of its generation to facilitate the development of a competitive retail
6 market, and despite the lack of clear "rules of the road" as to how the Company
7 was to ensure reliability, the direct and carefully planned actions taken by APS
8 and its affiliates stand in stark contrast to the muddled thinking that led to
9 disaster in California and other Western states.

10
11 **Q. WHAT WERE THE STEPS APS TOOK TO ADDRESS THE**
12 **"RELIABILITY GAP" EVEN BEFORE THE COMMISSION'S TRACK**
13 **A ORDER?**

14 A. APS undertook a series of steps to fulfill its public service obligation. APS
15 negotiated the 1999 Settlement with the Commission to ensure that divestiture
16 would only take place to PWEC. PWEC went on to install expensive temporary
17 generation and constructed the new resources needed to assure the Company's
18 access to sufficient generation to serve its customers without the sort of
19 panicked buying that characterized neighboring states. PWEC and APS also
20 negotiated a cost-based PPA that provided for all the Company's essential
21 reliability needs while allowing APS access to the competitive wholesale market
22 for economic purchases and supplemental requirements.

23 By no coincidence, APS reliability was maintained, and the Company was in a
24 position to carry out its promised rate reductions without building up either a
25 mountain of debt or other deferred costs for future APS customers to deal with
26 or without the loss of its financial integrity. Moreover, the prudent actions of
 APS and its affiliates have left the Commission and the State with significant

1 future flexibility to continue moving in a cautious and deliberate manner toward
2 integrating competition with the best of traditional regulation.

3
4 **Q. DID THE TRACK A ORDER MARK A CHANGE IN THE DIRECTION
OF RESTRUCTURING?**

5 A. Yes. The Track A Order clearly required APS to remain vertically-integrated
6 and reinforced what APS believed all along was the Company's obligation to
7 provide reliable service. What was not clear from Track A was where this
8 change in the direction of Arizona's regulatory policy was leading now that the
9 1996-2002 restructuring initiative was no longer the objective. But whatever that
10 new direction is, it must do more than simply assign responsibility for reliability.
11 Indeed, stating that APS has an "obligation to serve," without more, confuses
12 responsibility with authority. The Commission should also authorize and
13 encourage APS to use all appropriate means to resolve the "reliability gap" left
14 over from the model of the Electric Competition Rules and provide the
15 regulatory tools and support for that task.

16
17 **Q. HOW CAN THE COMMISSION ADDRESS THIS PROBLEM?**

18 A. First, the Commission must decide not only who it expects to be responsible for
19 reliable service, an obligation which the Track A Order appears to clearly
20 reaffirm as remaining on APS, but also how this obligation is to be met and how
21 the traditional "regulatory compact," to use Dr. Gordon's term, will govern the
22 Commission's evaluation of the Company's efforts to meet that obligation. The
23 Electric Competition Rules were silent on how reliability concerns would be met
24 except through implicit faith that somehow the "market will provide," while at
25 the same time imposing restrictions and limitations on UDCs. The Electric
26 Competition Rules were equally vague on how the Commission would evaluate

1 and provide cost recovery for long-term resource commitments, whether in the
2 form of long-term power contracts or new generation construction. It is that
3 latter and more fundamental lack of certainty, and not so much whether this or
4 that specific resource cost will be recovered, that risks imperiling the needs of
5 customers for reliable service.

6
7 **Q. WHAT DOES APS BELIEVE IS ITS APPROPRIATE ROLE AFTER
THE COMMISSION'S "CHANGE IN DIRECTION" IN TRACK A?**

8 A. For the reasons discussed in Dr. Landon's and Dr. Gordon's testimony, APS
9 believes the role for which it is best suited, and more to the point, the role that
10 best serves the interests of APS customers, is for APS to remain a vertically-
11 integrated electric utility. As such, the Company would continue to have the
12 option, subject to this Commission's traditional regulatory authority, of
13 constructing, acquiring and/or contracting for such electric supplies as are
14 believed necessary and appropriate in the good faith discretion of APS
15 management. And APS would continue to be regulated by this Commission on
16 general cost-of-service principles. This permits the Company to continue to use
17 its demonstrated resource procurement expertise without unnecessary and
18 counterproductive restrictions.

19
20 **Q. WHY IS VERTICAL INTEGRATION OF APS STILL APPROPRIATE?**

21 A. It is all about the "reliability gap" to which I previously referred. Without the
22 ability to own and control generation resources, a UDC is essentially unable to
23 assure reliable service at reasonable prices. If we have learned no other lesson
24 from the 2000-2001 debacle in California, Nevada, and elsewhere, I would think
25 that the risk of market dependency would be burned indelibly into our psyche.
26

1 However, one need not focus solely on history to draw this same conclusion.
2 Just look at today's headlines.

3
4 **Q. ARE THERE OTHER REASONS TO BE WORRIED ABOUT**
5 **RELIABILITY OTHER THAN THE "RELIABILITY GAP" LEFT OVER**
6 **FROM THE ELECTRIC COMPETITION RULES?**

7 A. Yes. The regulatory, market, economic and political factors that affect our
8 ability to provide reliable service have never been in such disarray, thus making
9 our job ever so much more difficult. We all remember the service disruptions,
10 curtailments, brown-outs and capacity shortages on the West Coast in 2000-
11 2001 and the extraordinary measures APS and PWEC were forced to take in the
12 summer of 2001 to avoid those problems in Arizona. These concerns have not
13 faded into distant memory. The challenges facing the resource planners at APS
14 are very real and, I am sure, are of equal concern to the Commission. Consider
15 the following:

16 1. By virtually all accounts, the wholesale power market is
17 insufficiently robust, deep or transparent. For example, the Track A Order
18 found that because the wholesale market has "faltered," "is not currently
19 workably competitive," and FERC lacked "an effective regulatory and
20 oversight approach," it calls into question the reasonableness of wholesale
21 prices. This makes it difficult to transact business with full assurance that
22 economically efficient pricing is being achieved. Adding to this problem is
23 the evolving (and therefore highly uncertain) nature and schedule of the
24 FERC-mandated standard market design.

25 2. After the initial frenzy of merchant generation
26 announcements several years ago, virtually no new generation is planned in
Arizona or throughout the western region that would be accessible to APS.

1 For example, according to a Merrill Lynch report dated June 12, 2003, only
2 some 1400 megawatts are expected to be added throughout the entire non-
3 California WECC in 2004 and 2005. Compounding the dearth of new
4 capacity is the raft of cancellations in recent years. More than 9800 MW of
5 the 26,057 announced for Arizona have been cancelled or indefinitely
6 suspended. And, of the 50,505 MW announced for the Arizona-New
7 Mexico-Southern Nevada-West Texas sub-region, more than 20,000 MW
8 have been cancelled or suspended as of June 2003. Moreover, the boom in
9 generation now appears to be over before it ever got to the Valley. No party
10 other than PVEC has built or proposed to build generation or transmission
11 to alleviate the APS "must-run" constraints during peak summer periods.

12 3. Against this lack of planned new generation additions, power
13 demand throughout the region continues to grow at significant rates. This is
14 illustrated in Mr. Bhatti's and Dr. Hieronymus' testimonies, both of which
15 discuss the impending end of the current oversupply of generation in the
16 West and especially in the Southwest.

17 4. The capital markets are reluctant (some might say loathe) to
18 finance new plant construction as a result of the events of the last several
19 years and the disappointing performance of the seemingly indestructible,
20 high-flying merchant enterprises announced not so very long ago.

21 5. Even those survivors in the generation business have
22 evidenced little willingness to make long-term and sufficient power
23 supplies available to APS. The recent Track B initial solicitation process,
24 although widely publicized and anticipated in one form or another, for
25 several years, drew so few bids in such meager quantities for so little
26

1 duration that the outside merchant industry's ability to meet APS customer
2 needs in even the short run is seriously in doubt.

3 6. Even the sellers with capacity interested in doing business
4 with APS pose risks. The credit quality of those entities is, in many
5 respects, declining and may not meet minimum acceptable standards. And
6 of the merchant plants built or under construction in the Arizona-New
7 Mexico-Southern Nevada-West Texas region, more than 5675 MW carry a
8 junk bond rating from either Moody's or Standard and Poor's.

9 7. New legal impediments are arising to the market. Both
10 buyers and sellers of power are now resorting to the courts in an
11 unprecedented attempt to abrogate their contractual commitments in a
12 manner which, if successful, will seriously undermine the "rule of law" and
13 the ability to rely on the expected performance, particularly long-term, of
14 counter-parties who may later wish to renege on their deals.

15 8. Insufficient transmission investment is being made to support
16 a burgeoning wholesale market. Although APS has recently spent hundreds
17 of millions of dollars on transmission improvements, and its filed 10-year
18 plan indicates an intent to commit more than half a billion dollars over the
19 next few years in new transmission, these improvements were designed, in
20 large measure, to meet the needs of the Company's native load customers.
21 APS cannot, and should not be expected to finance inter-regional lines or
22 merchant generation pathways out of state without merchant generator
23 participation. Indeed, in the Track A Order, this Commission emphasized
24 that the merchant community was to share in the "burden and obligation" of
25 constructing transmission infrastructure needed to promote wholesale
26 competition. To date, it has not done so.

1 Now I do not want to beat a dead horse on the reliability issue, but it is an issue
2 critical to customers and an essential part of the Company's public service
3 mandate. The wholesale market is not a safe place to be these days without a
4 high tolerance for risk or a large hedge of generation to fall back on when things
5 turn ugly. APS and its customers are not among the former and would like to
6 remain among the latter. That is why our resource planning group has always
7 been quite concerned about excessive reliance on the wholesale market, whose
8 participants' actions are beyond the Company's (and to a large extent this
9 Commission's) power to control. It is also why rate basing of the PWEC assets
10 makes good sense and allowing APS to maintain its role as a traditional
11 vertically-integrated utility should be both encouraged and supported.

12
13 **Q. ARE YOUR PRECEDING COMMENTS INTENDED TO BE CRITICAL**
14 **OF THE DESIRE TO SEE WHOLESALE COMPETITION DEVELOP IN**
15 **A MANNER THAT WILL BENEFIT ALL ELECTRIC CUSTOMERS**
16 **WHILE STILL BEING FAIR TO INCUMBENT UTILITIES?**

17 **A.** No, not at all. The Commission and its Staff have been quite zealous in
18 promoting policies that are intended to advance the public interest in competitive
19 markets, adequate infrastructure, and reasonable rates. I would specifically draw
20 attention to the Commission Staff's biennial assessments of transmission
21 adequacy, the Commission and Staff roles in the CATS process, and the recently
22 finalized RMR study for the Valley. The Commission and its Staff have also
23 taken leadership roles in promoting and approving needed transmission
24 infrastructure projects in Arizona and in urging merchant generator participation
25 in those efforts. Finally, the Commission and Staff have fought to assure
26 adequate gas supplies for Arizona and for rational FERC and Congressional
electric policies that respect legitimate state interests. And, in all of these efforts,

1 they have allowed all interested parties to participate and share their views
2 during Commission deliberations.

3 My testimony is offered on behalf of a utility whose essential business purpose
4 for over 100 years has been focused on its retail customers and on the
5 development of this State. Because APS was here well before the tumult and
6 change of recent years and intends to fulfill its service commitment long into the
7 future, and after markets have matured into a sustainable long-term equilibrium,
8 we have strong views on the "Whats, "Hows," and "Whens" of attempts to
9 transform this vital infrastructure industry. And we cannot help but focus on the
10 sometimes arcane but critically important "details" of cost recovery, long-term
11 planning, regulatory certainty, and customer service, details that are essential to
12 keep the lights on and the machinery of Arizona's industry running. Thus, when
13 the "theory" of competitive market benefits bumps into the "reality" of serving
14 daily customer power needs, we believe it appropriate to offer what are
15 hopefully constructive comments and suggestions.
16

17 **Q. DOES THIS MEAN APS WILL GO BACK TO THE TYPE OF UTILITY**
18 **IT WAS IN THE 1980S AND BEFORE, WHEN IT PROVIDED**
19 **VIRTUALLY ALL OF ITS CAPACITY AND ENERGY NEEDS**
20 **THROUGH UTILITY-OWNED GENERATION?**

21 **A.** No. Despite its many problems, the wholesale market for electricity has been
22 irrevocably changed by the opening of the transmission network on a non-
23 discriminatory basis and, to a lesser extent, the development of more robust
24 generation technology. This has subjected the entire power industry to increased
25 competitive pressures to improve efficiency and manage risk. Similarly, the
26 development of a trading market for electricity, albeit greatly slowed by the
aftermath of Enron, will allow for the monetization of electricity as a

1 commodity that could not even have been imagined in 1980. What these
2 developments mean is that utilities will likely never again be the islands unto
3 themselves they once were. This is what Dr. Gordon refers to as the "new
4 vertical integration" of electric utilities—an integration that allows the utility to
5 provide the reliability and price stability of traditional regulation while fully
6 exploiting the opportunities of the developing wholesale market, and being
7 subject to the discipline of that market, in ways that add value for utility
8 customers.

9
10 **Q. DO THE COMPANY'S PLANS REFLECT THIS "NEW VERTICAL
INTEGRATION?"**

11 **A.** Yes. As is shown in Mr. Bhatti's testimony, APS' own long-range forecast of
12 loads and resources no longer even attempts to self-build for all future APS
13 customer needs. APS understands that the wholesale market is not just some
14 place where utilities dump their unneeded energy or take advantage of each
15 other's relative economies of generation. It is a viable and necessary resource
16 that can and should be incorporated into a broad-based portfolio of resources
17 used to serve customer needs. This is why APS supports a vibrant and robust
18 wholesale market and why it has taken significant steps to encourage that
19 market. These include: (1) leadership roles in developing the WestConnect RTO
20 and resolving regional "seams" issues; (2) expedited interconnection of
21 merchant generators; (3) regional interconnection and reserve sharing activities;
22 and (4) the implementation of new and more economical retail rates for backup
23 and supplemental power needs for merchant generators within its retail service
24 area.

1 V. DESCRIPTION OF APS

2 A. *General Facts*

3 Q. **MR. WHEELER, WOULD YOU PLEASE PROVIDE A GENERAL**
4 **OVERVIEW OF APS?**

5 A. APS is a wholly owned subsidiary of Pinnacle West Capital Corporation. APS is
6 a Phoenix-based company with approximately 6000 employees, assets of about
7 \$6.5 billion and unadjusted gross revenues in 2002 of \$2.1 billion. The
8 Company generates, delivers and sells electricity to about 902,000 customers in
9 its service area, which is totally within the state of Arizona. The Company is a
10 regulated public utility serving about half the population of the greater Phoenix
11 metropolitan area, about half the population of Arizona, and 11 of the state's 15
12 counties. As I will discuss later in my testimony, the rural and somewhat rugged
13 nature of much of our service territory presents challenges to cost control and
14 reliability that APS has readily accepted and consistently met.

15 APS owns nuclear, coal, oil and gas-fired generating stations that together with
16 long-term contracts (including those awarded in Track B) give it total generation
17 resources of about 6570 MW. With several other utilities, APS jointly owns, but
18 is the sole operator of Palo Verde, the largest nuclear power facility in the U.S.
19 and the single largest producer of electricity of any kind in the country. APS
20 also jointly owns and operates the Four Corners and Cholla power plants, which
21 are coal-fired. In addition, the Company owns part of another coal-fired station,
22 Navajo, which is operated by Salt River Project, as well as several smaller oil-
23 and gas-fired units.

24 APS has a diverse generation mix. Including the PWEC units that APS is asking
25 to include in rate base, by 2004 our generation mix (based on capacity) will
26

1 consist roughly of 44% coal, 31% nuclear and 25% natural gas. This diversity is
2 a powerful tool over the long run in our efforts to manage risk in the face of
3 changing wholesale market and fuel prices.

4 There are a number of factors that have allowed APS to improve service while
5 substantially lowering rates. First, although APS has added customers at about
6 three times the national average, the consequences and demands of which are
7 discussed below, through the prudent use of technology and other means, APS
8 serves considerably more customers per employee than a decade ago. In
9 addition, through efficiency improvements such as better heat rates and shorter
10 refueling and maintenance outages, APS has kept our nuclear and coal
11 production costs below the national average.

12
13 *B. Rates, Generation Performance, the Challenges of Growth, and
Customer Service Issues*

14 **Q. HOW HAVE APS RATES FARED AGAINST INFLATION SINCE YOUR
15 LAST RATE INCREASE IN 1991?**

16 **A.** Driven by operational improvements at every level of the Company since our
17 last rate increase more than a dozen years ago, APS has compiled a rate
18 reduction and cost containment record that has served our customers well.
19 Attachment SMW-1 illustrates APS price performance versus inflation over
20 most of the period since our last rate increase. Since 1991, APS' rates have
21 already fallen by 14.5% while the consumer price index – the most widely cited
22 measure of inflation – has increased by 32%. APS soon will implement our
23 ninth rate decrease in a decade (a 1.5% decrease effective July 1, 2003). By the
24 time any rate change could take effect from this general rate case, APS' rates
25 will have fallen by 16% while the CPI will have increased by more than 36%.
26 As shown on Attachment SMW-1, by the end of this year APS' rates will have

1 dropped dramatically in "real" or inflation-adjusted terms. Stated another way,
2 since 1991, these decreases will have provided APS customers with savings of
3 \$1.74 billion. While Californians and residents of many other Western states
4 experienced large rate increases over the last few years, APS customer received
5 rate decreases. APS has accomplished this while improving service to customers
6 and while maintaining an investment-grade rating on our corporate debt.

7
8 **Q. HOW HAVE YOUR POWER GENERATING STATIONS PERFORMED
IN RECENT YEARS?**

9 A. Extremely well. For example, Palo Verde was the most productive single power
10 station in the country in 2002, bettering its own previous high, with record
11 output of 30.8 billion kWh. This marked the eleventh straight year Palo Verde
12 has held this distinction. Last year, Palo Verde also set a best-ever 94.4%
13 capacity factor record. Palo Verde Unit 1 operated for its entire fuel cycle –
14 running "breaker to breaker" for a unit record 502 consecutive days, one of the
15 best operational performances between refueling outages in station history. This
16 kind of performance between refueling outages was achieved even as APS
17 continues to reduce the amount of time per refueling.

18
19 **Q. HOW DO YOU MEASURE POWER PLANT PERFORMANCE?**

20 A. The industry generally measures large base-load plant performance by capacity
21 factor because such plants are intended to be "on line" and operating most of the
22 time. Smaller peak-load plants, however, are intended to operate only for a few
23 days or weeks per year and therefore have much lower capacity factors than
24 base-load plants. Because capacity factor does not adequately reflect the purpose
25 or measure the reliability of smaller plants, their performance is most often
26 stated in terms of equivalent availability factor ("EAF"). EAF is simply the

1 percentage of time the unit was available for use by customers weighted by the
2 percent of the unit's capacity that was available. For example, if a unit had 90%
3 of its capacity available 90% of the time, its EAF would be 81% (90% x 90%).

4
5 **Q. HOW DID THE COMPANY'S OTHER GENERATION ASSETS**
6 **PERFORM USING THE ABOVE MEASUREMENT?**

7 A. Company fossil plants also performed extremely well in 2002. All five Four
8 Corners units had high EAFs and achieved an overall capacity factor of 83%,
9 placing the site among the top 20% of coal plants in the nation. Units 4 and 5,
10 the largest of the Four Corners units, ranked in the top 10% in capacity factor.
11 Cholla, another base-load coal station, achieved an EAF of more than 90%, the
12 station's best since 1997. The gas and oil plants at Ocotillo, Saguaro, West
13 Phoenix, Yucca and Douglas combined for an EAF of more than 90%.

14 A longer-term perspective provides an even more representative picture of our
15 generation performance. From 1992-96, the capacity factor at Palo Verde
16 averaged 78.6%, above the 75% target established by the Commission when
17 Palo Verde came into service in the 1980s; but from 1997-2001 the five-year
18 average increased to 91.4%. Over those same years, Palo Verde's average forced
19 outage rate (the percent of time a unit is off line for unscheduled events such as
20 equipment failures) fell from 4.3 to 1.8% per year. And its scheduled outage
21 factor (essentially the amount of time needed for refueling) fell from 17% to
22 7.7%. Most impressively, over these same periods, its five-year average total
23 production (APS' share only) increased from 7.37 million MWH per year to
24 8.69 million MWH per year. At Four Corners, the capacity factor from 1992-96
25 averaged 80% per year; the five-year average from 1997-2001 was 82.6%. At
26

1 Cholla the five-year average capacity factor increased over these same time
2 periods from 73.2% to 77.4%.

3
4 **Q. DID YOUR IMPROVED PERFORMANCE HELP YOU MEET
INCREASING CUSTOMER DEMAND?**

5 A. Yes, without this continued high level of performance, APS would not have
6 been able to cope with the price and reliability challenges of Western power
7 markets. High capacity factors from our large generating units helped keep
8 prices down, but high availability from smaller units meant APS had the power
9 when APS needed it during times of peak demand. APS' customers set a new
10 demand peak record last July of 5,803 MW. That marked an increase of nearly
11 26% in five years.

12 During 2000 and 2001, California and other Western states experienced rolling
13 blackouts and threats of blackouts. APS' customers, by contrast, experienced no
14 rolling blackouts or outages caused by a lack of generating resources. By relying
15 on APS' own generation resources and those of PWEC, supplemented by stable
16 long-term contracts and timely short-term purchases and hedging, APS was able
17 to avoid the price volatility and supply interruptions that wreaked havoc on
18 many Western utilities and their customers.

19
20 **Q. HOW HAS RAPID GROWTH IN THE COMPANY'S SERVICE
21 TERRITORY AFFECTED APS?**

22 A. Meeting the demands of growth in APS' service territory is a significant
23 challenge for APS. Attachment SMW-2 shows a comparison of growth in retail
24 electric sales for APS versus the country as a whole. Since 1990, total retail
25 electricity sales for APS has grown by 53%, or 22% faster than total U.S. energy
26 demand.

1 APS' growth should come as no surprise. At its current rate of growth, Arizona
2 as a whole adds around 150,000 to 160,000 new people annually, which is
3 equivalent to adding a city the size of Tempe each year. All of these people need
4 homes to live in, places to work, and businesses at which to shop. All of which
5 explains why Arizona continues to rank so highly across the country in such
6 indicators of economic growth as housing construction and growth in jobs.
7 Typically, almost half of this growth occurs in the APS service territory. In
8 order to keep all of these new homes and businesses supplied with electricity,
9 APS must invest in new electric generation, transmission, and distribution
10 facilities on an on-going basis.

11 If growth were constant from year to year, planning for and adding these new
12 facilities would be a fairly routine matter. But, growth is not constant every year
13 and, in fact, can be quite volatile depending on economic conditions. Although
14 some of this volatility can be anticipated, particularly in the near-term,
15 forecasting economic growth and the associated demand for electricity is at best
16 an imprecise science. Therefore, the Company's plans must account for this
17 uncertainty. With reliability as the cornerstone of the supply plans, this means
18 that APS must add generation and distribution facilities in advance of demand
19 growth and during periods of heightened volatility, such investment may lead
20 the demand growth by several years.

21
22 **Q. HOW DOES GROWTH IN ARIZONA COMPARE WITH OTHER**
23 **REGIONS OF THE COUNTRY?**

24 **A.** Arizona has always been and, for the foreseeable future, is expected to be one of
25 the fastest-growing states in the country. For each decade in the 20th century,
26 Arizona consistently ranked among the top five states for population growth in

1 percentage terms and is poised to do so again through at least the first decade of
2 the 21st century. Often, one of the reasons that a region may have a large
3 percentage increase in population is because a relatively modest absolute
4 number of people is added to a small existing base. This was the case for
5 Arizona when it was a small state (as measured by population) even as late as
6 the 1970s, but is less the case now as Arizona grows in size. This is currently the
7 case for Nevada and is why Nevada routinely leads the nation in percentage
8 growth. However, Arizona is now the 19th largest state in the country and yet
9 still continues to grow at very high rates.

10 To put this in context with national averages, Attachment SMW-3 shows how
11 Arizona's population has grown since 1990 relative to U.S. population growth.
12 Population levels are indexed against 1990 for both Arizona and the U.S. so that
13 an easy comparison can be made between the two. It is apparent from the chart
14 how much difference in total population a growth rate three times the national
15 average will make over a 10 or 15 year period. By 2002, Arizona's population
16 had increased by 28% more than the U.S. population over the same period.

18 **Q. HOW SIGNIFICANT ARE THE CHANGES IN GROWTH RATES**
19 **FROM YEAR TO YEAR IN DEVELOPING YOUR COMPANY'S**
20 **PLANS?**

21 **A.** Very significant. Population and household growth varies with the strength of
22 the national economy, and this fact will be reflected in the number of new
23 customers APS will serve in any given year. These new customers include both
24 residential homes and apartments as well as new commercial and industrial
25 business establishments. Attachment SMW-4 shows the changes in APS average
26 annual retail customer growth over the last 20 years. One can see that there are
periods of very high growth, such as in the mid to late 1990s, and there are

1 periods of very low growth which tend to be concentrated in and around periods
2 of economic recession.

3 Not only are the absolute number of new customers important each year, but
4 also their size. In strong economic growth periods where wages and incomes are
5 growing rapidly, new homes tend to be larger, a larger share of all new homes
6 are single family (which are on average larger than apartments), and more
7 commercial floor space is constructed. When economic growth slows, the
8 opposite generally occurs.

9
10 The strength of the economy also affects how customers use electricity at their
11 homes and businesses. In more robust economic periods, customers are more
12 likely to add electricity-using appliances and equipment in homes and
13 businesses, so the average use per customer tends to rise at a faster rate than
14 during slower economic periods. In contrast, households and businesses are
15 more likely to cut back on their usage during slower economic growth periods.
16 Households may adjust thermostat settings to manage their overall bill better.
17 Manufacturers are more likely to be using equipment less as demand for their
18 product remains low. These fluctuations have an impact on the amount of
19 additional electricity consumption APS will see in any given year.

20 All of these factors taken together highlight the additional growth pressures that
21 are present in Arizona and the APS service territory over and above those seen
22 at the national level. It also highlights why APS has to be so concerned about its
23 future ability to meet the challenges of such growth, both from the standpoint of
24 its financial strength and the consistency of its regulation.

1 **Q. ARE THERE OTHER FACTORS THAT ADD TO THE UNCERTAINTY**
2 **OF ELECTRICITY DEMAND GROWTH?**

3 A. Yes. A large portion of the electricity demand APS serves is weather-sensitive,
4 so the natural fluctuations in weather from year to year can have a dramatic
5 effect on the peak demand APS resources must meet and the total amount of
6 energy that must be supplied in any given time period. Also, unique factors
7 emerge from time to time that have impacts on electricity demand beyond those
8 related to overall economic growth or weather. The decline in the relatively
9 energy-intensive copper mining industry, even during a period of economic
10 strength, has affected the growth in demand recently. Another recent event
11 worth highlighting is the extent of conservation undertaken by our customers in
12 the summer of 2001 in response to the threat of California-like blackouts
13 spreading to Arizona and other Western states.

14 **Q. DOES APS EXPECT GROWTH TO CONTINUE INTO THE FUTURE?**

15 A. APS' current forecast expects energy sales to grow at an average annual rate of
16 4.3% to 2010, with higher growth rates occurring in the near term as the
17 economy and associated electricity demand recovers from the downturn in
18 business activity. In Mr. Bhatti's testimony, APS has provided a forecast of peak
19 loads, showing an estimated growth of roughly 1300 MW over the next five
20 years, or some 4.2% per year.

21 **Q. HAS GROWTH ALSO AFFECTED THE DELIVERY SIDE OF APS?**

22 A. Yes. On the transmission, distribution and customer service side of APS'
23 business, the challenges match, or perhaps even exceed, those on the generation
24 side. The delivery challenges of meeting customer growth - while maintaining
25 high levels of reliability at a reasonable cost - are multifaceted and formidable.
26

1 As noted earlier, over the last decade, APS has experienced annual customer
2 growth of about 3.8%, adding nearly 280,000 new customers. This growth has
3 not been exclusively a Phoenix phenomenon; growth in APS' five divisions has
4 averaged between 2.9 and 4.1% per year over the decade. At the same time, APS
5 has gone from 7053 employees to roughly 6000 employees, primarily through
6 voluntary, targeted workforce reduction programs that responsibly balance
7 employee concerns with reliability and overall economics.

8 Despite this rapid growth, APS now provides better service with fewer
9 employees per customer. In 1993, APS served 93 customers per employee; in
10 2002, APS served 148 customers per employee, an increase in productivity of
11 59%.

12
13 To service its over 900,000 customers, APS Delivery owns and maintains 364
14 substations, 4981 miles of transmission lines and 24,371 miles of distribution
15 lines. One aspect of the APS service territory often overlooked is that APS
16 serves a large rural and sparsely populated area in addition to the urbanized
17 Valley region. Consequently, APS serves just 19 customers per square mile. In
18 contrast, SRP and Tucson Electric Power – the other two large Arizona electric
19 utilities – serve 233 and 282 customers per square mile, respectively. And
20 compared to urban areas, service territories with low customer density are more
21 expensive to serve per customer. This is because both the costs of wires,
22 transformers and other items must be recovered over a smaller base and the
23 costs themselves are greater. It can also be more difficult to maintain reliable
24 service because service lines are long and are subject to more opportunities for
25 interruption due to factors such as fire or storm damage.
26

1 Q. WHAT ARE SOME OF THE SPECIFIC WAYS YOU HAVE MET THE
2 CHALLENGES OF GROWTH?

3 A. First, APS has made significant investments in necessary facilities. Over the last
4 decade (1993-2002), APS has invested \$1.7 billion on transmission and
5 distribution infrastructure just to keep up with the increased usage per customer
6 as well as rapid growth in the number of customers. APS has plans to invest up
7 to another half billion dollars in the next five years just on transmission. In
8 addition, APS spent \$300 million on planned maintenance to assure continued
9 higher levels of reliability.

10 APS has turned those expenditures into some impressive total increases in
11 electrical infrastructure. To serve the 280,000 new customers APS has added
12 and built over the last decade:

- 13 • 3059 MW of distribution substation capacity, a 42.4% increase,
- 14 • 1752 MW of transmission capacity, a 9.3% increase.
- 15 • 38 new distribution substations and 4 new transmission substations.
- 16 • 249 new distribution feeders giving us an additional 3120 MW of feeder
17 capacity, an increase of 43.7%.
- 18 • 818 miles of transmission lines.

19 In addition, APS has completed nearly 5000 miles of distribution lines, an
20 increase of about 26%.

21 Transmission siting has become increasingly difficult but also even more
22 essential over the last decade. APS is a 50% partner in a transmission project
23 that includes a new 500-kilovolt transmission line from Palo Verde to Rudd, a
24 new substation in the West Valley, and two 230-kilovolt transmission lines from
25 West Phoenix to the White Tanks substation, with a loop from White Tanks to
26

1 Rudd. This project resulted in an increase in the Company's Phoenix area import
2 capacity of about 600 MW. It also improved the reliability of APS service to the
3 growing load in the West Valley.

4 To accommodate increased load within the Valley, APS also rebuilt a 230-
5 kilovolt line from the West Phoenix plant to the Lincoln Street substation. These
6 delivery enhancements not only will serve the growing customer demand in the
7 Phoenix area, they provide better voltage support and operating flexibility.
8

9 **Q. HAVE YOU SPED UP CONSTRUCTION AND CUT COSTS WITH ANY**
10 **INNOVATIVE CONSTRUCTION TECHNIQUES?**

11 A. APS has made many changes with the help of computer technology and
12 standardization of design and construction techniques. For example, APS has
13 made crucial changes that accelerate and reduce the cost of building new or
14 expanding existing substations. The major savings in time and money have
15 come from the use of standard designs and prefabricated materials. Switching to
16 computer-aided design of substations has reduced the time required to produce a
17 new design by nearly 70%.

18 When actually building the substations, APS assembles all of the 12-kilovolt bus
19 structures (our standard distribution voltage bus) at our metal fabrication shop.
20 APS then transports the assembled structures to the site for installation. In
21 addition, the control houses are prefabricated and taken to the site. Using these
22 and other techniques, APS has greatly reduced the time and labor required to
23 build a substation. Just ten years ago, construction would have required from
24 two to three months with a six or seven person crew. Today, APS can construct
25 the same substation in three to four weeks with a three to four person crew.
26

1 Without these better and faster techniques, it would have been very difficult to
2 keep up with the customer growth APS has experienced over the last decade, let
3 alone reduce the number of APS employees needed to serve those customers.

4
5 **Q. IN MANAGING GROWTH, HAVE YOU PARTNERED WITH OTHER BUSINESS GROUPS?**

6 **A.** Yes. APS has formed a working partnership with the homebuilders to meet the
7 in-service dates for new developments, to "energize" homes as they are
8 completed and to improve air quality around construction sites by providing
9 temporary electrical service earlier in the construction of homes (thereby
10 avoiding the need for portable generators).

11 APS has accomplished this with a variety of improvements:

- 12 • Providing a single point of contact for each homebuilder and developer;
- 13 • Working with builders and other utilities to have a "joint trench" to
- 14 reduce the builder's costs;
- 15 • Meeting monthly with the Home Builders Association; and
- 16 • Providing educational materials and training to enable builders to educate
- 17 consumers about their energy and conservation options.

18 **Q. HOW HAVE YOU IMPROVED YOUR MAINTENANCE PROCEDURES FOR TRANSMISSION AND DISTRIBUTION SYSTEMS?**

19 **A.** APS is adopting reliability-centered maintenance ("RCM"), an innovation that
20 has been used successfully by the airlines, the military and nuclear and fossil
21 power plants. The benefits of an RCM approach include elimination of
22 unnecessary and premature preventive maintenance tasks, while at the same
23 time decreasing the need for corrective maintenance and reducing forced
24 outages. This not only improves overall availability, it allows APS to increase
25 the focus of maintenance resources on critical systems and equipment.
26

1 APS is laying the groundwork for RCM implementation. Work is progressing on
2 obtaining the tools and developing the techniques to assess the condition of
3 equipment. With these tools, APS can make maintenance decisions based upon
4 equipment condition, instead of rigidly following mere time-based maintenance
5 schedules. These RCM tools include thermography, oil sampling for various
6 combustion gases (indicating insulation breakdown), and a wide battery of
7 electrical tests.

8 Another key aspect of RCM is failure cause identification and corrective action.
9 In 2001, APS identified the four primary interrupting/failure modes, which
10 constitute 10% of our outages yet caused over 80% of customer interruptions.
11 Since that time, APS has actively developed solutions to address each of the
12 identified areas and has begun implementation of these solutions.

13
14 APS' vegetation management program has resulted in the Company being
15 recognized by the National Arbor Day Foundation as a "Tree Line Utility." It
16 also has reduced tree-related outages since 1997 by 41%. Over the last eight
17 years, APS has been able to move from a costly initial clearing of circuit paths
18 to only removing new growth in many areas, thus reducing our cost per tree
19 from about \$67 to \$27.41. To be a "Tree Line Utility," a utility must follow
20 stringent (ANSI A-300) pruning guidelines, provide annual tree worker training,
21 and a tree-planting program. APS has received this recognition for the last seven
22 consecutive years.

23
24 **Q. WHAT PROGRAMS OR ENHANCEMENTS HAVE YOU FOCUSED ON
TO IMPROVE CUSTOMER SERVICE?**

25 **A.** APS has developed a number of programs and initiatives in this area. I will
26 mention only a few.

1 With the information and technology explosion that has occurred in the past
2 decade, APS customers' expectations have changed. The demand and need for
3 timely and accurate information about electric outages has skyrocketed. With
4 better training and computer technology, in most instances APS is now able to
5 satisfy customers' demands for information about outages. When APS detects a
6 problem, the boundaries of the outage are quickly determined and entered into
7 the APS telephone system. With this information in the APS system, even
8 customers waiting "on hold" can immediately find out that APS is aware of the
9 power interruption. In most cases APS can provide customers with a reasonable
10 estimate of when the power will be restored. Also, as customers provide
11 information about interruptions in their area, customer service representatives
12 can pass that information along, via computers, to APS Operations employees.
13 This coordinated information sharing often dramatically shortens the length of
14 outages.

15 One key to APS' better performance in this area is the APS customer call center,
16 a centralized facility staffed with employees trained to handle a variety of
17 customer inquiries and outfitted with sophisticated software and
18 telecommunications equipment to link customer information with electrical
19 system (such as outage) information, as well as financial records. APS call
20 center performance has been one of the anchors of improved customer
21 satisfaction. APS has found that it's just as important for customers to have
22 quick access to timely information about outages, for example, as it is to restore
23 power quickly. In addition, APS has achieved our target of answering 80% of
24 calls within 20 seconds in all but one of the last 42 months. In 2001, the most
25 recent year for which complete data is available as of the time this testimony
26

1 was prepared, APS' service level performance ranked second among 59 Edison
2 Electric Institute and American Gas Association member utilities.

3 APS continues to offer customers greater flexibility and convenience, and
4 reduces costs through its utility web site, APS.com. In recognition of these
5 efforts, APS.com was named Best Web Site for 2002 by the Web Marketing
6 Association. APS provides extensive information about energy conservation on
7 APS.com, including an on-line energy audit for residential customers that has
8 had approximately 30,000 visits in the last two years. On this web site,
9 customers can also order or download 14 residential and 18 commercial "Energy
10 Answers" fact sheets and other energy efficiency materials.

11
12 To provide APS customers even more flexibility, APS has greatly expanded
13 available payment options. APS traditionally offered mail, walk-in and
14 automatic debit (SurePay) options. In addition to those, APS now offers self-
15 service office payment, electronic payments via the internet, and pay-by-phone
16 options using check and credit or debit cards.

17
18 **Q. DOES APS KEEP CUSTOMERS INFORMED ABOUT THEIR ENERGY
USAGE AND CONSERVATION OPTIONS?**

19 **A.** Yes. APS provides customers with referrals to heating/cooling contractors who
20 meet high training requirements and professional standards. Since 1998, APS
21 has provided referrals for over 10,000 customers seeking AC/heat pump service
22 or replacement and has helped provide training for over 3000 local contractor
23 technicians. APS has helped to educate consumers by distributing over 15,000
24 copies of the 20 page "Consumer's Guide to an Energy Efficient AC System".
25
26

1 To help promote the value of energy efficient new homes, APS works with
2 builders and vendors to allow those builders to provide homebuyers with a
3 heating/cooling cost guarantee. All participating homes are guaranteed to be at
4 least 30% more efficient than the International Energy Conservation Code. To
5 date, there more than 3000 lots committed in the program. APS has helped to
6 educate homebuyers about energy efficient new home features by distributing
7 almost 10,000 copies of the 28 page "Homebuyer's Guide to New Construction
8 - Energy Efficient Ideas to Build Upon".

9
10 For residential customers that have been with the Company for at least six
11 months, APS now provides an "annual use" letter that provides a summary of
12 the previous year's electric consumption as well as informative messages about
13 payment options and other messages tailored to their situation. For example,
14 time-of-use customers receive tips on shifting energy usage to off-peak hours.
15 APS also invites its customers to promote the development and use of solar
16 energy through the APS Solar Partners program. As Solar Partners, customers
17 pay a small monthly fee to have a portion of their home or business electricity
18 needs met by solar power produced at APS solar facilities around the state. In
19 addition to mass mailings, APS has provided energy conservation information
20 through a wide variety of venues. Working with homebuilders and their
21 association, APS helps promote the value of energy efficient new homes. APS
22 has sponsored research to help builders and contractors improve residential
23 energy efficiency. For example, by focusing on problems with air conditioning
24 and heat pump installation, APS has identified ways to reduce duct leakage by
25 two-thirds. APS' infrared studies have been influential in getting homebuilders
26 to improve the insulation standards in walls and ceilings of new homes.

1 For the past two years, APS has promoted a voluntary energy-savings program
2 for commercial customers. Nearly 100 customers have participated each
3 summer.

4 APS has promoted a variety of energy efficiency projects in partnership with the
5 Arizona Energy Office ("AEO"). These joint projects include building science
6 training for builders, a program that helps builders identify construction details
7 that can bring energy efficiency improvements. More than 2500 building
8 industry professionals have attended the training, including all of the top ten
9 builders in Phoenix. APS also partnered with the AEO to develop a user-friendly
10 system for APS.com that allows commercial customers to easily access and
11 analyze their bills so they can better identify opportunities for additional
12 savings.

13
14 **Q. WITH THE COMPANY'S EMPHASIS ON MANAGING GROWTH,**
15 **COST CONTAINMENT AND CUSTOMER SERVICE, IS APS ALSO**
16 **CONTINUOUSLY SEEKING TO IMPROVE OTHER ASPECTS OF ITS**
17 **PERFORMANCE?**

18 **A.** Yes. APS emphasizes continuous improvement in its safety record. In 2000, the
19 last year for which comparison data is available, APS placed second out of
20 companies of similar size and structure in an EEI comparison of OSHA injuries.
21 Last year, APS again reduced its number of recordable injuries among
22 employees.

23 APS also goes to great lengths to educate the public about electrical safety.
24 While it's impossible to cite a specific correlation between APS' efforts and
25 improved safety, APS has seen a reduction in the kind of incidents addressed in
26 the Company's safety education program. For example, prior to the mid-1990s,
the state was experiencing several fatal accidents annually involving tree care

1 workers and landscapers coming into contact with electrical facilities. APS
2 began an aggressive education program by providing free annual safety seminars
3 to tree care workers and landscapers in addition to a statewide public service
4 announcement campaign. Since the implementation of these programs, APS has
5 not had a tree care worker or landscaper fatality in our service territory. While
6 APS can never know how many potential incidents are avoided because of the
7 education it provides, APS attempts to reach a variety of audiences with a broad
8 array of safety materials. APS targets teachers, students, overhead power line
9 contractors, tree trimmers and landscapers, cable TV installers, well drillers,
10 underground line contractors, safety directors and "first responders" (fire and
11 police personnel) with small-group presentations. In the last five years APS has
12 put on hundreds of these presentations and reached thousands of individuals.
13 APS also strives to reach the general public with brochures, bill stuffers,
14 billboards, radio ads, public service announcements and the Arizona Family
15 Internet Site. APS has even sent out electrical safety fliers attached to pizza
16 boxes.

17 Again last year, APS earned the top rating (AAA) for environmental, economic
18 and social performance from Innovest, an international investment advisory
19 firm. The firm ranked us number two out of 28 electric utilities included in the
20 S&P 500. APS also was presented with the Better Business Bureau of Central
21 and Northern Arizona's Business Ethics Award.
22
23
24
25
26

1 VI. COMMISSION REVIEW OF PWEC/APS CONTRACT

2 Q. **WHY HAS APS SUBMITTED ITS RECENTLY EXECUTED TRACK B**
3 **POWER CONTRACT WITH PWEC TO THE COMMISSION FOR**
4 **APPROVAL AND ASSURANCE OF COST RECOVERY?**

5 A. Under Section 3.4 of the APS/PWEC contract, APS must submit the contract for
6 Commission review because it calls for deliveries after January 1, 2006. This
7 provision was added to the master contract used by the Company during the
8 Track B process as a compromise on the issue of prior Commission approval of
9 longer term power agreements. If Commission approval and provision for full
10 cost recovery are not forthcoming within 12 months, both PWEC and APS have
11 the unilateral right to terminate the contract for deliveries in 2006.

12 Q. **HOW DOES THIS CONTRACT FILING AFFECT THE COMPANY'S**
13 **REQUEST TO RATE BASE THE PWEC ASSETS?**

14 A. It doesn't. APS intends to secure dedication of the PWEC assets long-term by
15 acquiring them and including them in its regulated cost-of-service. Such a
16 decision would result in a mutually-agreed upon termination of the APS/PWEC
17 agreement and render any specific finding by the Commission relative to the
18 APS/PWEC contract unnecessary. However, APS cannot afford to jeopardize its
19 rights under the contract for even the period prior to 2006 by failing to follow
20 the requirements of Section 3.4. As the Commission is aware from the results of
21 the Track B solicitation, the PWEC offer for the four summer months of 2003
22 through 2006 was the most competitive offer presented to the Company and
23 represented savings to the Company as compared to the market at the time the
24 contract was executed. APS has previously provided the Commission a copy of
25 the APS/PWEC contract (under provisions of confidentiality) as part of the
26 Company's "Report on the Track B Solicitation Process" dated May 27, 2003.

1 VII. CONCLUSION

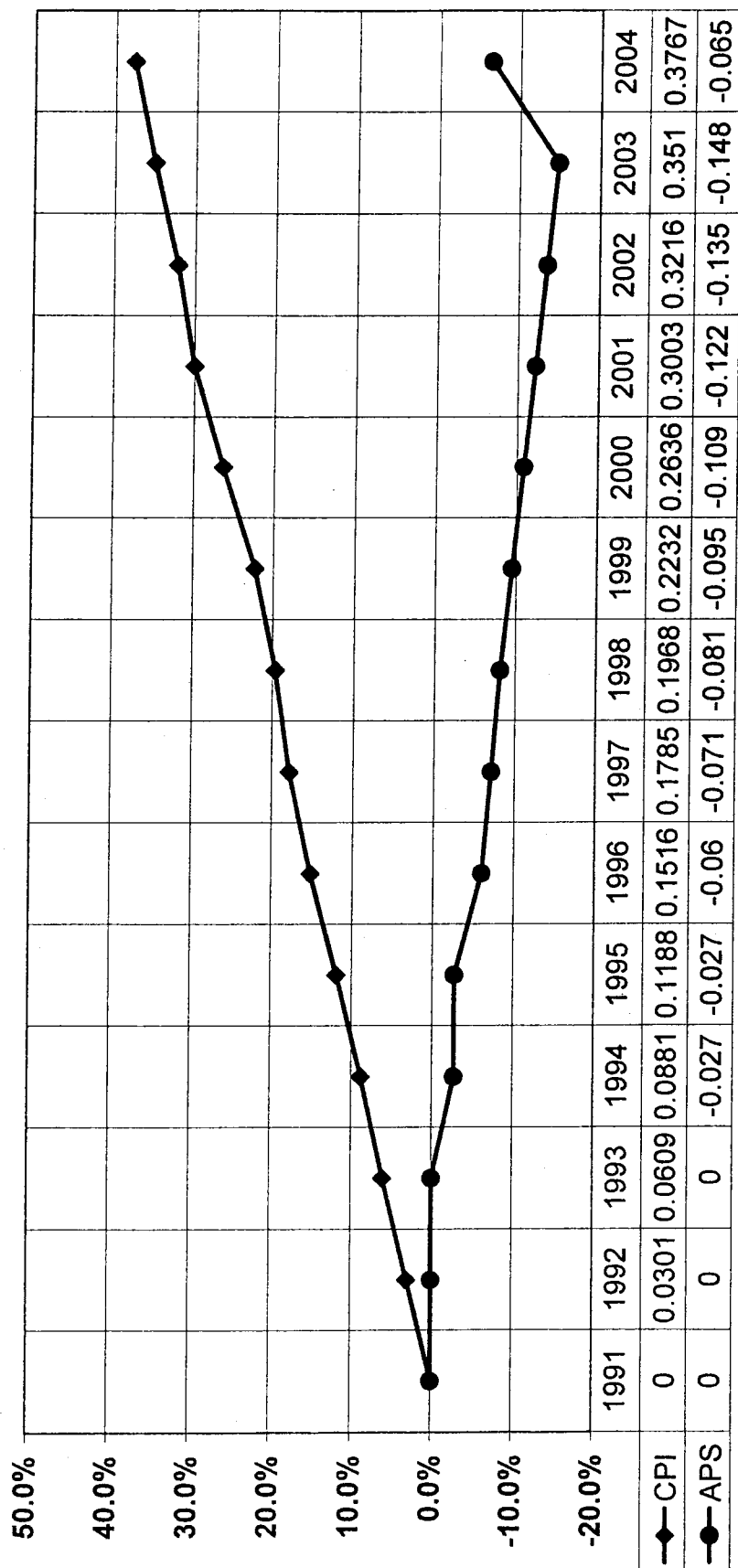
2 Q. DO YOU HAVE ANY CONCLUDING REMARKS?

3 A. Yes. Rate cases are never enjoyable for the Company, its customers, or the
4 Commission. They are, however, sometimes necessary. This is one such
5 instance. In this proceeding, the Commission must recognize the need to set
6 rates that reflect the higher costs APS is incurring to provide reliable service to
7 its customers. There is also the unfinished business of restoring to the Company
8 some of the losses it suffered in reliance on a settlement that the Commission
9 encouraged and approved, but later found necessary to amend in a way that
10 denied to APS the benefit of its bargain. Lastly, the Commission has the further
11 opportunity to express its views as to how reliability should be maintained in a
12 challenging and unsettled industry. APS believes now is not the time for another
13 experiment with unproven regulatory or industry structures and urges the
14 Commission to support the Company's efforts to return to the traditional
15 vertically-integrated utility that has served Arizona reliably for over a century.

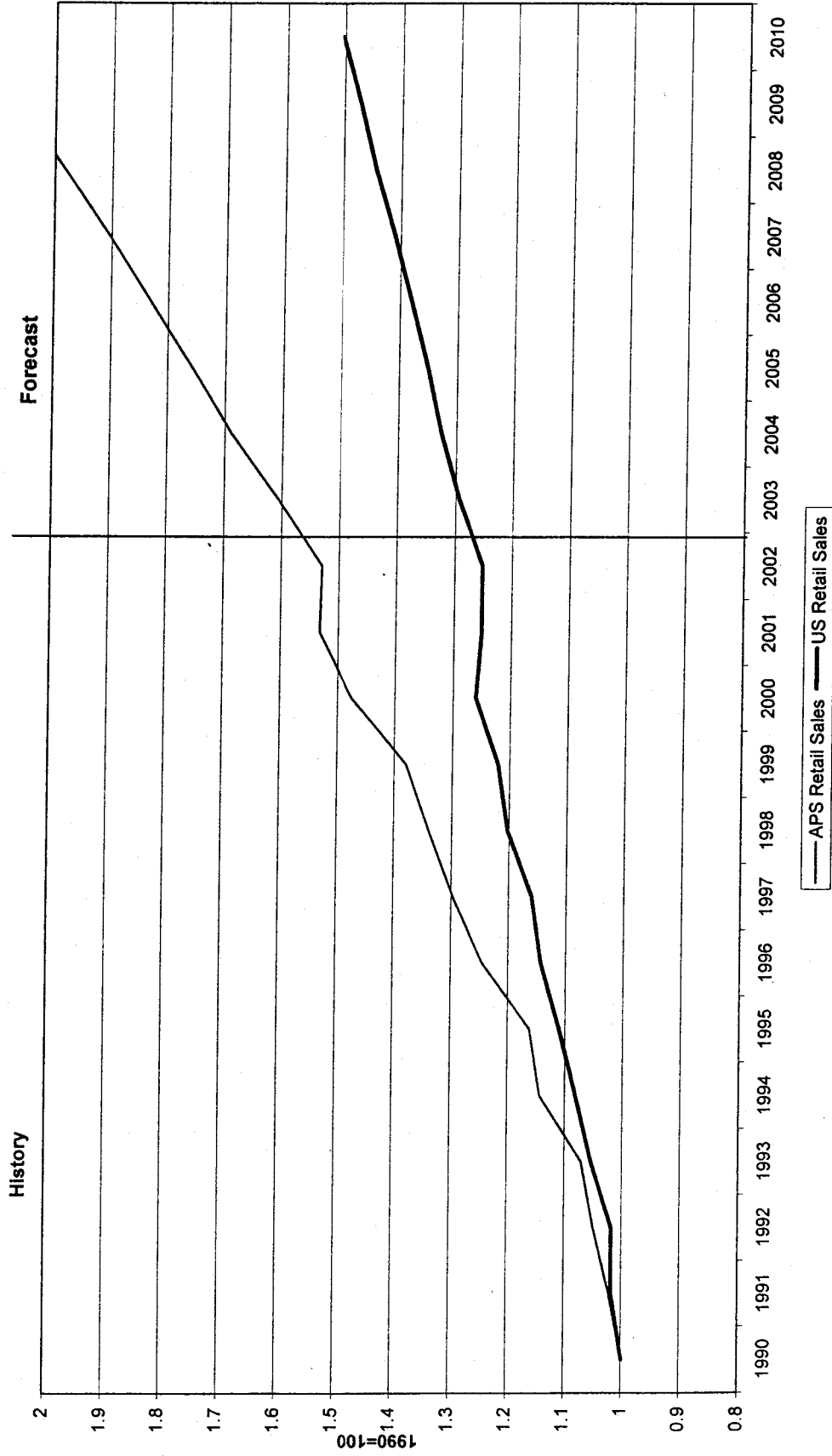
16 Q. DOES THAT CONCLUDE YOUR PREFILED DIRECT TESTIMONY IN
17 THIS PROCEEDING?

18 A. Yes, it does.
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Changes in Consumer Price Index And APS Prices Since 1991

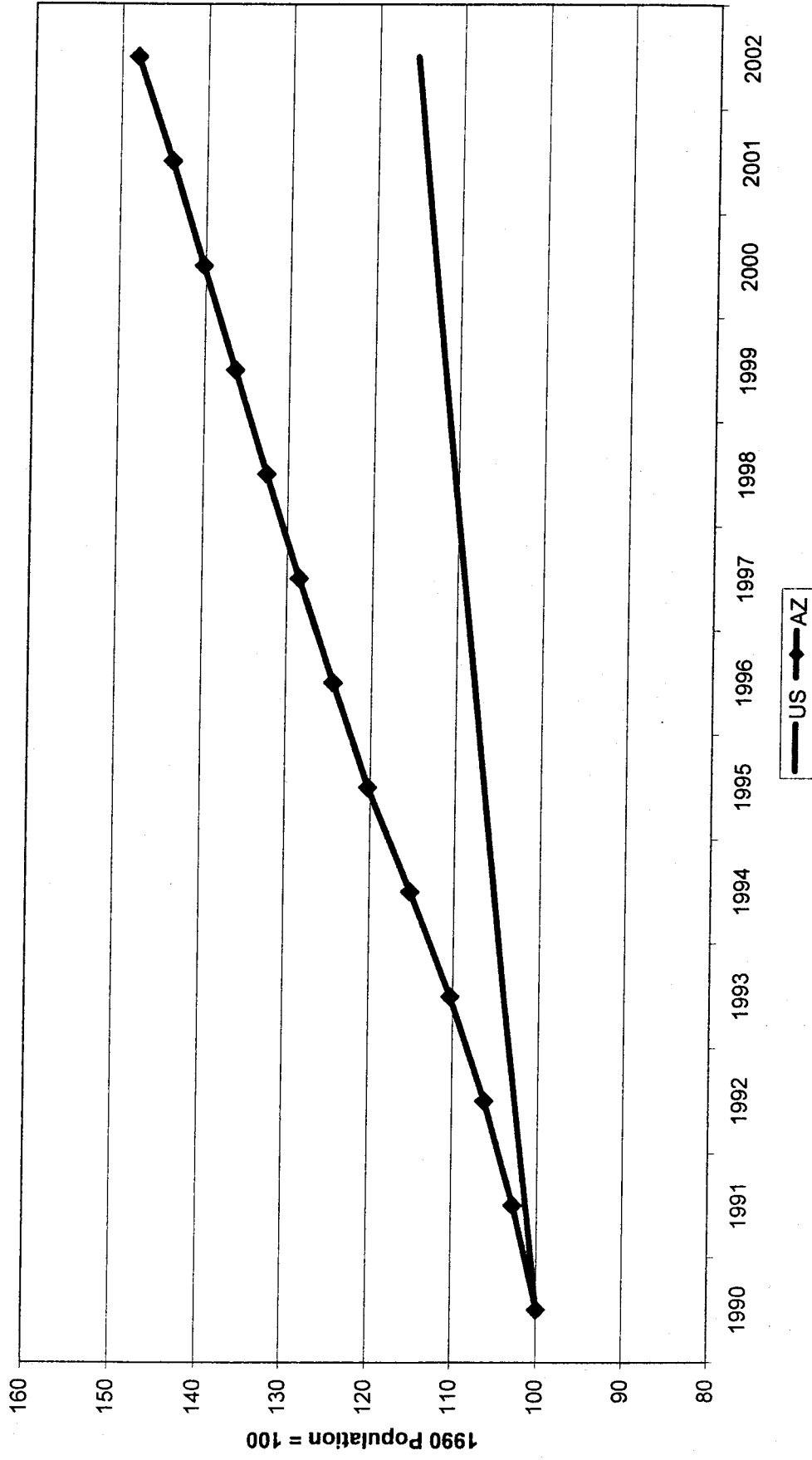


Retail Sales Growth **APS vs U.S.** **Indexed to 1990**



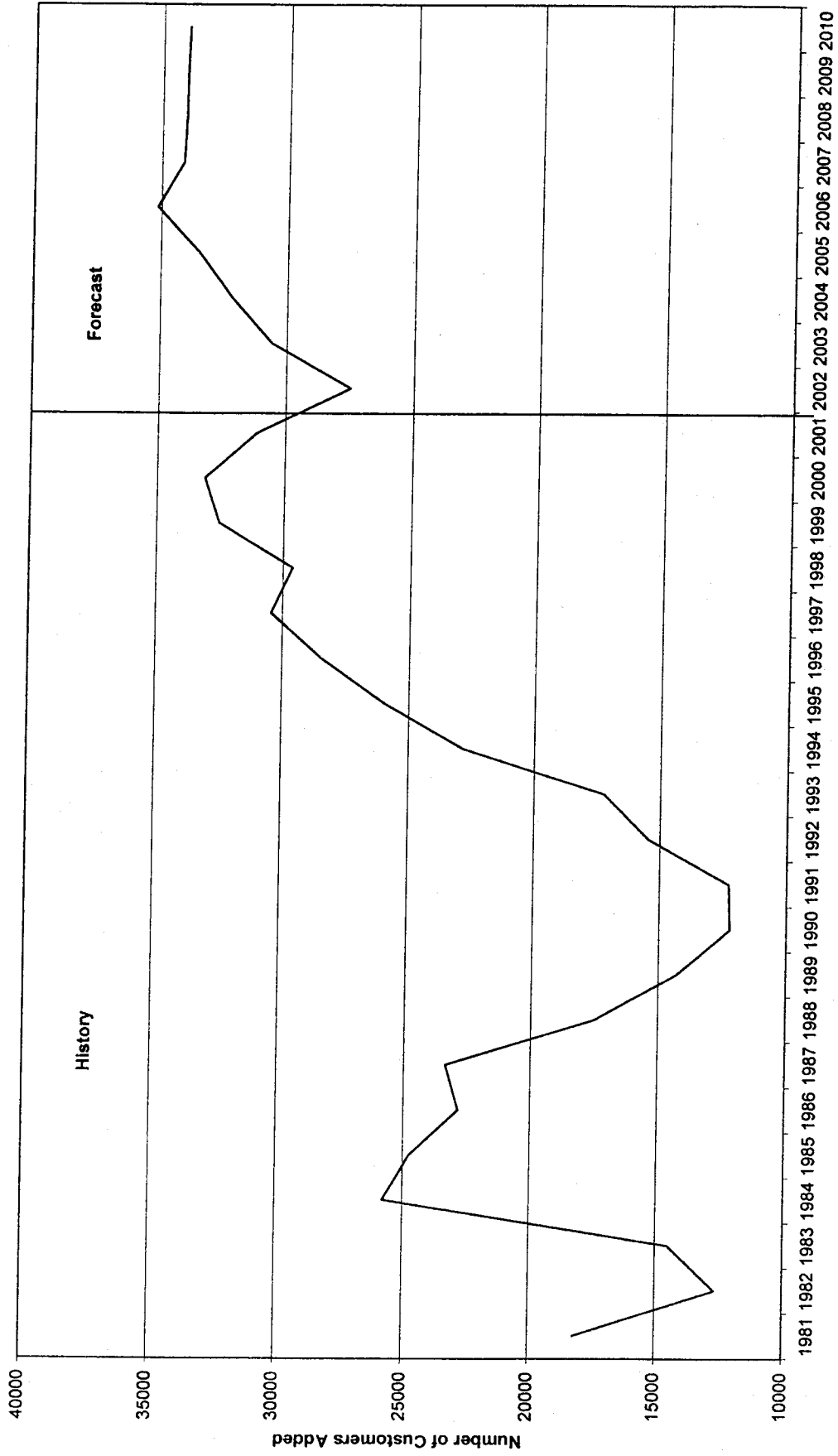
Sources: U.S. Department of Energy; Energy Information Administration; APS Forecasting Department

1990 - 2002 Population Growth Arizona vs U.S.



Sources: U.S. Department of Commerce; U.S. Census Bureau; AZ Department of Commerce; AZ Census Bureau

APS Retail Customer Growth **Number of Customers Added Each Year**



Source: APS Forecasting Department

Testimony
of
Donald H.
Robinson

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DIRECT TESTIMONY OF DONALD G. ROBINSON

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On Behalf of Arizona Public Service Company

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Docket No. E-01345A-

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June 27, 2003

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1 **DIRECT TESTIMONY OF DONALD G. ROBINSON**
2 **ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY**
3 **(Docket No. E-01345A-03-_____)**

4 I. **INTRODUCTION**

5 Q. **PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.**

6 A. My name is Donald G. Robinson. I am Vice President of Finance and Planning
7 for Arizona Public Service Company ("APS" or "Company"). My business
8 address is 400 North Fifth Street, Phoenix, Arizona 85004.

9 Q. **ARE YOUR EDUCATIONAL AND PROFESSIONAL**
10 **QUALIFICATIONS SET FORTH IN APPENDIX A TO YOUR DIRECT**
11 **TESTIMONY?**

12 A. Yes.

13 Q. **WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

14 A. I will testify to the Company's financial results and the projections shown on
15 Schedules A and F of the Arizona Corporation Commission's ("Commission")
16 standard filing requirements ("SFRs" or "SFR Schedules"). Additionally, I will
17 identify and support the various adjustments to rate base and operating income
18 set forth in the SFR "B" and "C" schedules. Specifically, I am sponsoring the
19 projected year information provided in SFR Schedules A-2 through A-5, the
20 Total Company amounts shown on SFR Schedules B-2 and C-1b through C-2,
21 and the projected information portion of SFR Schedules F-1 through F-4.

22
23 II. **SUMMARY**

24 Q. **WOULD YOU PLEASE SUMMARIZE YOUR TESTIMONY?**

25 A. APS' requested rate increase is necessary for the Company to achieve financial
26 ratios consistent with maintaining a relatively low investment grade rating. The

1 Company does not believe that this request will allow it to improve its credit
2 rating to a more desirable BBB+ or single A level, but it should be adequate to
3 maintain a BBB level. The request also would allow APS the opportunity to earn
4 a return on equity equal to its cost of equity.

5 APS has selected a calendar 2002 test period consistent with Commission rules
6 and prior Commission precedent. That test period was then adjusted to make it
7 more representative of normal operations at the time new rates in this Docket are
8 approved by the Commission. Those adjustments include, among other things,
9 the net impact of including new generation in the Company's rate base and the
10 restoration of certain write-offs previously taken by APS pursuant to its 1999
11 Settlement Agreement with the Commission ("1999 Settlement" or
12 "Settlement").

13
14 As adjusted, APS has a test period jurisdictional rate base of \$4,207,476,000 and
15 test period operating income of \$263,870,000. This produced an overall rate of
16 return of 6.27%, which is significantly less than APS' cost of capital of 8.67%.

17 **Q. HOW IS YOUR TESTIMONY ORGANIZED?**

18 A. I will first discuss the Company's financial results. Then I will discuss the pro
19 forma adjustments to Original Cost Rate Base and Operating Income. Finally, I
20 explain the Company's requested surcharge amounts to recover certain costs
21 incurred by APS to comply with the Commission's Electric Competition Rules.
22

23 **Q. ARE YOU SPONSORING ANY ATTACHMENTS TO YOUR**
24 **TESTIMONY IN ADDITION TO THOSE PORTIONS OF THE SFR'S**
DESCRIBED ABOVE?

25 A. Yes. My testimony includes the following Attachments:

- 26 1) DGR-1 – APS Financial Indicators at Proposed Rates,

- 1 2) DGR-2 – APS Financial Indicators at Current Rates,
- 2 3) DGR-3 – Cost of Long-Term Debt,
- 3 4) DGR-4 – Rate Base Pro Forma Adjustments,
- 4 5) DGR-5 – Income Statement Pro Forma Adjustments, and
- 5 6) DGR-6 – Amounts Deposited in Decommissioning Trusts Included in
- 6 Cost-Of-Service.

7
8 III. FINANCIAL RESULTS

9 Q. **MR. ROBINSON WOULD YOU PLEASE DISCUSS THE CURRENT**
10 **FINANCIAL CONDITION OF APS?**

11 A. Yes. But in order to do that, I first should put our filing in perspective. More
12 than nine years ago, we instituted the first of a series of rate decreases. The rate
13 decreases, which ultimately resulted in a cumulative reduction of 16%, were the
14 result of several settlement agreements, each of which this Commission
15 approved. As part of the 1999 Settlement, the Company made the commitment
16 to the public and to the Commission that if certain reasonable requests were
17 granted, the Company, absent extraordinary circumstances, would institute
18 annual rate decreases for the period 1999 through 2003. Thanks in part to (1) the
19 Commission's actions in issuing Decision No. 61973 (October 6, 1999), and (2)
20 the Company's continuing efforts to minimize costs and implement numerous
21 additional operating efficiencies, the Company has been able to keep its promise
22 to its customers and this Commission. Also, it should be recognized that the test
23 period used in the 1999 Settlement was 1996, and thus none of the investments
24 in new facilities or increases in operating costs since 1996 are being reflected in
25 the rates charged to our customers.

1 Although APS' rates have been declining, the Company has, until recently, also
2 been able to keep its commitment to its investors to provide an adequate return.
3 However, the Company's ability to earn a fair return and meet the financial
4 criteria necessary to maintain its corporate credit rating is now jeopardized
5 without the additional rate relief requested by the Company.

6 Let me explain what that means in terms of the Company's current financial
7 condition. In Attachment DGR-1, I provide some key financial indicators for
8 two historic (2001 and 2002) and three projected (2003, 2004 and 2005) years,
9 with the proposed rate increase effective July 1, 2004, including: (1) adjusted
10 pre-tax interest coverage ratio; (2) adjusted funds from operations interest
11 coverage; (3) funds from operations to adjusted average total debt; (4) adjusted
12 total debt to total capital; (5) return on average common equity; and (6) adjusted
13 return on average common equity. Attachment DGR-1 reflects the financial
14 impact of all of the rate decreases that have or will take effect through July
15 2003.

16
17 As demonstrated in this Attachment, the adjusted return on average common
18 equity ("ROE") has declined from 2001 to 2002 and is anticipated to further
19 decline in 2003. The projected 6.7% ROE in 2003 is substantially below the
20 ROE range that APS witness Dr. Charles E. Olson has determined to be APS'
21 cost of equity.

22
23 **Q. PREVIOUSLY YOU MENTIONED FINANCIAL CRITERIA NEEDED**
24 **TO MAINTAIN THE COMPANY'S CREDIT RATING. WHAT ARE**
25 **THESE FINANCIAL CRITERIA, AND HOW DO THEY IMPACT THE**
26 **COMPANY'S RATINGS?**

25 A. Rating agencies have established certain financial results and ratios as guidelines
26 for achieving and maintaining an investment grade credit rating. For example,

1 the primary financial criteria used by Standard & Poor's ("S&P") to simply
2 maintain our current BBB investment grade rating include:

- 3 1) Pre-tax interest coverage ratio – 3.3 to 2.2 times,
- 4 2) Funds from operations ("FFO") interest coverage – 3.8 to 2.7,
- 5 3) FFO to total debt – 24.5% to 17.5%, and
- 6 4) Total debt to total capital – 49.5% to 57.0%.

7 Other rating agencies use similar criteria.

8
9 **Q. WHY DO THE RATING AGENCIES CONSIDER THE FINANCIAL
CRITERIA IMPORTANT?**

10 A. Financial criteria are a way to measure a company's financial health,
11 performance and risk. The pre-tax interest coverage ratio is used to determine if
12 earnings are sufficient to pay for interest costs. Although there is a strong
13 relationship between earnings and cash flow, analysis of cash flow can reveal a
14 debt-servicing capability that is either stronger or weaker than might be apparent
15 from earnings ratios. FFO interest coverage is used to measure the sufficiency of
16 a company's cash flow versus its interest costs. FFO to total debt is another cash
17 flow measurement. Total debt to total capital measures a company's leverage.

18
19 **Q. HOW DO CURRENT APS FINANCIAL RATIOS COMPARE WITH
THOSE NEEDED TO MAINTAIN A BBB RATING?**

20 A. As you can see in Attachment DGR-1, most of APS' financial ratios have been
21 slipping with one of the projected 2003 ratios, adjusted total debt to total capital,
22 falling below that acceptable for the BBB range.

1 Q. WHAT WOULD BE THE IMPACT ON THE COMPANY'S FINANCIAL
2 CONDITION SHOULD THE COMMISSION REJECT APS' RATE
3 REQUEST?

4 A. In Attachment DGR-2, I show APS financial ratios assuming the denial of the
5 instant rate application. Certain key indicators now fall below the BBB rating
6 range. Common equity returns decline to 6%, clearly a small fraction of what
7 Dr. Olson has determined to be APS' cost of equity.

8 Additionally, as discussed by Dr. Olson, without the Pinnacle West Energy
9 Corporation ("PWEC") generating units ("PWEC Units"), the Company will be
10 more reliant on the wholesale power market and will, therefore, be judged by the
11 investment community as inherently more risky.

12 Q. COULD APS RETAIN ITS BBB RATING UNDER THE ABOVE
13 CIRCUMSTANCE?

14 A. I doubt it. First, the financial results themselves may not support a continued
15 BBB rating, especially in light of the continued deterioration trend. Second, the
16 Company could not hold out to rating agencies much hope of stopping further
17 declines, let alone future improvement in its financial ratios, without a dramatic
18 turnaround in the Commission's treatment of APS.

19 Rating agencies also monitor more than just the numbers. They also look at
20 qualitative factors, one of the most important being regulatory treatment. Failure
21 by this Commission to recognize the need contained in this request would be a
22 very significant negative indicator to the rating agencies. Such action could be
23 interpreted by the rating agencies that the Commission will not support utilities
24 taking steps to ensure reliability of their systems or responsibly address the
25 impacts of changes in policy. This could adversely impact their view of all
26 Arizona regulated utilities.

1 Q. PLEASE DESCRIBE THE CONSEQUENCES OF A DOWNGRADE IN
2 APS' RATING.

3 A. There would be an immediate increase in the cost of commercial paper, a
4 significant increase in the cost of new debt and equity and an even greater
5 increase in current and future revenue requirements. In Attachment DGR-3, I
6 have compared the long-term debt costs of various ratings over the period 2000
7 through 2002. The average difference in cost between BBB and a BBB- rated
8 long-term debt was 68 basis points over the period shown (calculated by taking
9 the difference of the 3-year averages shown: 7.73% - 7.05%). This basis point
10 difference would mean a significant increase in cost to APS customers due to
11 higher interest expense.

12 APS has extensive on-going transmission, distribution and APS generation-
13 related construction programs and also has considerable refinancing
14 requirements. For example, as shown on SFR Schedule F-3, the Company
15 projects capital expenditures during the period 2003 through 2005 to be nearly
16 \$1.4 billion. Additionally, during 2004 and 2005, the Company will be required
17 to refinance more than \$600 million in long-term debt. If the Company were
18 forced to finance these levels with the additional 68 basis points, the cost to
19 customers would be \$13.6 million per year in additional interest expense. The
20 recent turmoil in the capital markets related to utilities only increases the
21 Company's concern about its ability to access the capital markets on reasonable
22 terms and obtain the financing needed to support these construction and
23 refinancing programs.

1 Q. **WOULD THERE BE BENEFITS TO CUSTOMERS OF THE**
2 **COMPANY'S RATING BEING UPGRADED TO BBB+ OR EVEN A?**

3 A. Yes, the cost of new debt and equity would decrease with a resulting decrease in
4 revenue requirements. In Attachment DGR-3, I have also included the cost of
5 both BBB and single-A bonds for the period 2000 through 2002. The average
6 difference in cost was approximately 100 basis points. This difference would
7 mean a significant decrease in cost to APS customers due to lower interest rates.

8 Q. **WHAT ARE THE FINANCIAL CRITERIA NEEDED TO OBTAIN THE**
9 **SINGLE-A RATING?**

10 A. The financial criteria used by S&P for a single-A investment grade rating for
11 utilities include:

- 12 1) Pre-tax interest coverage ratio – 4.0 to 3.3 times,
- 13 2) FFO interest coverage – 4.5 to 3.8,
- 14 3) FFO to total debt – 30.5 to 24.5%, and
- 15 4) Total debt to total capital – 43.0% to 49.5%.

16 Q. **BECAUSE APS IS A SUBSIDIARY OF PINNACLE WEST CAPITAL**
17 **CORPORATION ("PINNACLE WEST"), IS APS' CORPORATE**
18 **RATING STILL IMPORTANT?**

19 A. Absolutely. I believe it would be a mistake for this Commission to assume that it
20 is somehow "safe" to allow APS' financial ratios and financial ratings to
21 deteriorate. The Company's construction program to provide for new customers
22 is substantial and as noted above, existing debt issues will require refinancing. In
23 addition, Pinnacle West's ability and willingness to provide equity capital to
24 APS depends on the ability of APS to earn a fair return on such equity. It is
25 imperative that the Company maintain its financial strength, and that can only be
26 done through granting the rate relief requested.

1 IV. PRO FORMA ADJUSTMENTS

2 A. *Test Year*

3 Q. **WHAT TEST YEAR HAS APS PROPOSED IN ITS APPLICATION?**

4 A. The twelve months ending December 31, 2002 is our proposed Test Year. This
5 represents the most recent historical calendar period for which complete cost of
6 service information was available at the time we prepared our filing.

7
8 Q. **SHOULD THE COMMISSION BASE ITS DECISION IN THIS
9 PROCEEDING SOLELY ON THE UNADJUSTED FINANCIAL
RESULTS ACHIEVED BY THE COMPANY DURING THE TEST
YEAR?**

10 A. Of course not. The Test Year must be adjusted for changes in operating
11 expenses, revenues, plant-in-service, etc., which are known, measurable, and
12 capable of being reconciled with the Test Year without creating a significant
13 mismatching of costs and revenues. Otherwise, rates would not reflect
14 conditions expected to exist at the time they become effective.

15
16 Q. **WHAT DOES A "KNOWN AND MEASURABLE" ADJUSTMENT
MEAN?**

17 A. I consider an adjustment to be "known" when, given all the circumstances, its
18 probability of occurrence is significantly greater than the chance it will not
19 occur. An adjustment is "measurable" if it can be quantified in a meaningful
20 fashion such that the recognition of at least part of its effect on Test Year results
21 will make the Test Year "more representative" than if the adjustment were
22 omitted altogether.

23
24 Q. **WHAT DOES IT MEAN THAT AN ADJUSTMENT MUST BE
RECONCILED WITH TEST YEAR OPERATIONS?**

25 A. This is simply stated as the matching principle. This principle argues that
26 making only part of an adjustment is improper. For example, it would be wrong

1 to pro forma increased electric sales without recognizing some level of increased
2 costs to produce these sales. As with the concepts of "known and measurable,"
3 one cannot insist on a perfect matching for all adjustments without effectively
4 requiring a constantly updated Test Year. The issue is one of degree and of
5 fairness.

6
7 **Q. DID APS MAKE PRO FORMA ADJUSTMENTS TO TEST YEAR RATE
BASE AND OPERATING INCOME?**

8 A. Yes. Test Year pro forma adjustments can be categorized into three basic
9 classes:

- 10 1) Accounting, i.e., adjustments that remove expenses or revenues recorded
11 during the Test Year but that are properly associated with previous
12 periods, or adjustments that include expenses or revenues in the Test
13 Year that were erroneously (at least for ratemaking purposes) recorded in
14 an earlier period;
15 2) Annualizations, i.e., adjustments that merely annualize the full effect of
16 events taking place during the Test Year; and
17 3) Known and measurable changes to expenses or revenues that took place
18 or will take place after the end of the Test Year, and which are of such
19 significance that they should be recognized for ratemaking purposes.

20
21 **Q. HAS THE COMMISSION PREVIOUSLY ACCEPTED PRO FORMA
ADJUSTMENTS TO THE COMPANY'S TEST YEAR?**

22 A. Yes. It has been the consistent practice of the Commission to accept pro forma
23 adjustments to Test Year rate base and operating income in APS' litigated cases.
24 For example, in APS' last two fully litigated cases, Decision Nos. 55228
25 (October 9, 1986) and 55931 (April 1, 1988), the Commission accepted pro
26 forma adjustments proposed both by the Company and other parties. Also, by

1 approving a settlement agreement in Decision No. 57649 (December 6, 1991),
2 the Commission effectively accepted many of the Company's pro forma
3 adjustments. Such adjustments also are specifically recognized in A.A.C. R14-2-
4 103.

5 *B. Pro forma Adjustments to Rate Base*

6 **Q. HAS APS MADE PRO FORMA ADJUSTMENTS TO TEST YEAR RATE**
7 **BASE?**

8 A. Yes. These adjustments are shown in "Total Company" amounts on SFR
9 Schedule B-2. The total rate base adjustment is net of the corresponding
10 deferred income taxes. The jurisdictional allocations of each proposed rate base
11 adjustment were calculated by APS witness Alan Propper and are also shown on
12 SFR Schedule B-2. The Total Company portion of this SFR Schedule directly
13 corresponds with Attachment DGR-4, pages 1 through 5. For convenience sake,
14 I will refer in my testimony to Attachment DGR-4.

15 **1. PWEC Units**

16 **Q. WHY HAS APS MADE A RATE BASE PRO FORMA ADJUSTMENT ON**
17 **ATTACHMENT DGR-4, PAGE 1 OF 5, FOR THE PWEC UNITS?**

18 A. As explained in the testimony of APS witnesses Steven M. Wheeler and Ajit P.
19 Bhatti, the Company is proposing to acquire the PWEC Units and include them
20 in APS' rate base. The rate base pro forma adjustment shown on Attachment
21 DGR-4, page 1 of 5, reflects this inclusion in the amount of \$895,109,000.

22 **Q. PLEASE DESCRIBE THE PWEC UNITS THAT ARE BEING**
23 **INCLUDED.**

24 A. The PWEC Units consist of Redhawk Combined Cycle ("CC") Units No. 1 and
25 2, West Phoenix CC Units No. 4 and 5 and the Saguaro Combustion Turbine
26 Unit No. 3.

1 **Q. WHAT WAS THE BASIS FOR DETERMINING THE PWEC UNITS**
2 **RATE BASE PRO FORMA?**

3 A. The pro forma adjustment was calculated using the PWEC Units' depreciated
4 original cost, or book value, as of June 30, 2004, one day prior to the date rates
5 can become effective. Because APS would acquire the assets at approximately
6 that time and at their depreciated book value, the pro forma adjustment includes
7 projections for gross plant, accumulated depreciation and accumulated deferred
8 income taxes. To determine a mid-year 2004 book value, the average of the
9 projected year-end 2003 and 2004 book balances was calculated.

10 **Q. IS THERE A CORRESPONDING OPERATING INCOME PRO FORMA**
11 **ADJUSTMENT FOR THE PWEC UNITS?**

12 A. Yes. As discussed later in my testimony, a corresponding pro forma adjustment
13 related to operating income is shown on Attachment DGR-5, page 9 of 27.

14 **2. Regulatory assets**

15 **Q. PLEASE DESCRIBE THE RATE BASE ADJUSTMENT ON**
16 **ATTACHMENT DGR-4, PAGE 2 OF 5, FOR REGULATORY ASSETS.**

17 A. This pro forma adjustment reflects the removal from rate base of the regulatory
18 assets amortized under a prior settlement in 1996. The December 31, 2002
19 balance for this Regulatory Asset was \$104 million, resulting in a rate base
20 adjustment of (\$62,920,000). Because the \$104 million of regulatory assets will
21 be fully amortized by June 30, 2004, which again is the day before rates can
22 become effective, it is appropriate to remove this asset from rate base.

23 **Q. IS THERE A CORRESPONDING OPERATING INCOME PRO FORMA**
24 **ADJUSTMENT FOR REGULATORY ASSETS?**

25 A. Yes. As discussed later in my testimony, a corresponding pro forma adjustment
26 related to operating income is shown on Attachment DGR-5, page 20 of 27.

1 3. ISFSI

2 **Q. ATTACHMENT DGR-4, PAGE 3 OF 5, SHOWS A RATE BASE**
3 **ADJUSTMENT FOR INDEPENDENT SPENT FUEL STORAGE**
4 **INSTALLATION ("ISFSI"). COULD YOU PLEASE EXPLAIN?**

5 A. ISFSI is a dry storage facility for spent nuclear fuel from the Company's Palo
6 Verde Nuclear Generating Station ("Palo Verde"). The fuel pools where the
7 spent nuclear fuel is currently stored will soon reach the allowed maximum
8 capacity. The U.S. Department of Energy has been delayed in siting and
9 constructing permanent spent nuclear fuel storage facilities. Therefore, the
10 continued operation of the Palo Verde plant requires an alternative interim
11 storage solution. Spent nuclear fuel will be transferred from the fuel pools to the
12 ISFSI.

13 **Q. HOW HAVE THE COSTS ASSOCIATED WITH ISFSI BEEN**
14 **RECORDED IN THE PAST?**

15 A. APS has recorded a regulatory asset that represents the deferral of ISFSI costs
16 from the time the Palo Verde units were placed in service through December 31,
17 2002 with a corresponding offset in the accumulated provision for nuclear fuel
18 amortization. The liability is recorded based on the generation of electricity from
19 Palo Verde. The basis for recording this as a regulatory asset is A.A.C. R14-2-
20 1608 ("Rule 1608"), which provides for the recovery of spent fuel through the
21 System Benefits Charge ("SBC"). Article II.2.6 of the 1999 Settlement provides
22 for the deferral of SBC costs not then reflected in rates when such costs were
23 incurred for full recovery at a later date.

24 **Q. PLEASE EXPLAIN THE RATE BASE PRO FORMA ADJUSTMENT**
25 **FOR ISFSI.**

26 A. The pro forma adjustment to rate base of \$2,614,000 shown on Attachment
 DGR-4, page 3 of 5, reflects the amount of ISFSI costs anticipated to be accrued

1 between the end of the Test Year and the implementation of rates that recover
2 the deferred asset - January 1, 2003 through June 30, 2004. It should be noted
3 that if the ISFSI costs had not been deferred during the Test Year, they would
4 have been properly recorded as fuel expense and would have been included in
5 unadjusted Test Year expenses.

6
7 **Q. IS THERE A CORRESPONDING OPERATING INCOME PRO FORMA
ADJUSTMENT FOR ISFSI?**

8 A. Yes. As discussed later in my testimony, corresponding pro forma adjustments
9 related to operating income are shown on Attachment DGR-5, pages 14 of 27
10 and 21 of 27.

11
12 **4. Reversal of Settlement write-off**

13 **Q. HAS APS MADE A PRO FORMA ADJUSTMENT ON ATTACHMENT
DGR-4, PAGE 4 OF 5, FOR REVERSAL OF THE SETTLEMENT
WRITE-OFF?**

14 A. Yes. As discussed in Mr. Wheeler's testimony, the Company is proposing to
15 reverse the \$234 million write-off that was taken by the Company as a result of
16 the 1999 Settlement. This write-off was taken in consideration of the benefits
17 previously agreed to under that Settlement.

18
19 **Q. WHAT IS THE RESULTING PRO FORMA ADJUSTMENT?**

20 A. The Company removed \$234 million pre-tax from ongoing regulatory cash
21 flows and this was recorded as a net reduction of regulatory assets. The
22 reduction was reported as an extraordinary charge on the consolidated income
23 statement. The pro forma adjustment to rate base to reverse that write-off is
24 \$141,570,000.

1 Q. IS THERE A CORRESPONDING OPERATING INCOME PRO FORMA
2 ADJUSTMENT FOR THE REVERSAL OF THE SETTLEMENT
3 WRITE-OFF?

4 A. Yes. As discussed later in my testimony, a corresponding pro forma adjustment
5 related to operating income is shown on Attachment DGR-5, page 22 of 27.

6 5. Transmission assets

7 Q. WHY HAS APS MADE A PRO FORMA ADJUSTMENT ON
8 ATTACHMENT DGR-4, PAGE 5 OF 5, FOR TRANSMISSION ASSETS?

9 A. Under Federal Energy Regulatory Commission ("FERC") rules, APS is required
10 to take transmission service and related ancillary service for APS Standard Offer
11 customers under the APS Open Access Transmission Tariff ("OATT").
12 Additionally, APS is required to bill itself for transmission and related ancillary
13 services for APS Standard Offer customers under the APS OATT. Mr. Propper's
14 testimony describes the methodology for determining this rate base pro forma
15 adjustment. The net pro forma adjustment to rate base is (\$648,643,000).

16 Q. IS THERE A CORRESPONDING OPERATING INCOME PRO FORMA
17 ADJUSTMENT FOR TRANSMISSION?

18 A. Yes. As discussed later in my testimony, a corresponding pro forma adjustment
19 related to operating income is shown on Attachment DGR-5, page 15 of 27.

20 6. Total rate base adjustments

21 Q. WOULD YOU PLEASE SUMMARIZE THE ADJUSTED TEST YEAR
22 ORIGINAL COST RATE BASE PROPOSED BY APS?

23 A. Yes. On SFR Schedule B-1, APS has an adjusted jurisdictional original cost rate
24 base of \$4,207,476,000.
25
26

1 C. *Pro forma Adjustments to Operating Income*

2 **Q. HAS APS ALSO MADE PRO FORMA ADJUSTMENTS TO TEST YEAR**
3 **OPERATING INCOME?**

4 A. Yes. They are set forth in Schedule C-2 of the Company's application as part of
5 the Commission's SFRs. SFR Schedule C-2 provides total Company figures and
6 Mr. Propper's jurisdictional allocation of my adjustments. The Total Company
7 portion of this SFR Schedule directly corresponds with Attachment DGR-5,
8 pages 1 through 27. Again, for convenience, I will refer in my testimony to
9 Attachment DGR-5.

10 **Q. IS INCOME TAX EXPENSE INCLUDED IN EACH OF YOUR**
11 **OPERATING INCOME PRO FORMA ADJUSTMENTS?**

12 A. Yes. Each pro forma adjustment identified in Attachment DGR-5 includes an
13 income tax calculation, at the current statutory combined state and federal
14 income tax rate, so that the impact on net income for each adjustment can be
15 determined. However, throughout most of my testimony I will be referring to
16 pre-tax pro forma adjustment amounts.

17 1. **Regulatory assessments and franchise fees**

18 **Q. PLEASE EXPLAIN THE COMPANY'S PROPOSED TREATMENT OF**
19 **REGULATORY ASSESSMENTS AND FRANCHISE FEES.**

20 A. This pro forma adjustment is being made so that all revenue-based taxes and
21 assessments are treated as an "add-on" in accordance with our proposed tariff.
22 Currently, both regulatory assessments and sales taxes are add-ons. The
23 Company is proposing that franchise fees also be a direct add-on rather than
24 included in base rates. Under the Company's previous methodology, all
25 customers pay the same franchise fee percentage regardless of the actual
26 franchise fees charged to APS by their community. The proposal to treat

1 franchise fees as a community specific add-on will ensure that customers in
2 areas charging lower franchise fees to the Company will pay only those lower
3 fees. While APS' existing base rate treatment of franchise fees is
4 administratively easier, the proposed treatment is more equitable. Additionally,
5 the proposed treatment of franchise fees is consistent with the ratemaking
6 treatment of franchise fees for the majority of the other utilities in the state and
7 this pro forma adjustment results in no change to operating income.

8
9 **Q. HOW WAS THE SPECIFIC PRO FORMA ADJUSTMENT DETERMINED?**

10 A. The pro forma adjustment amounts were determined by an analysis of the
11 amount charged to expense Account 928, "Regulatory Commission Expenses"
12 and the amount charged to Account 927, "Franchise Requirements." We then
13 removed both the revenues and expenses for the test year to be consistent with
14 the Company's tariff proposal to treat franchise fees as an "add-on."

15
16 **2. Annualize ACC rate levels**

17 **Q. PLEASE EXPLAIN THE PRO FORMA ADJUSTMENT ON ATTACHMENT DGR-5, PAGE 2 OF 27, TO ANNUALIZE RATE LEVELS.**

18 A. This pro forma adjustment is being made so that the revenue deficiency
19 calculation can be expressed in terms of the base revenues in effect at the time
20 new rates are anticipated to become effective. Under the terms of the 1999
21 Settlement, APS instituted a rate decrease effective July 1, 2002 and will
22 institute another rate decrease effective July 1, 2003. This pro forma adjustment
23 reflects an additional six months for the 2002 decrease and a full twelve months
24 for the 2003 decrease. The amount was calculated on a month-by-month basis
25
26

1 using actual Test Year billing quantities for each class of customer and results in
2 an adjustment to pre-tax operating income of (\$37,005,000).

3
4 **3. Normalize weather conditions**

5 **Q. PLEASE DESCRIBE THE COMPANY'S PROPOSED PRO FORMA**
6 **ADJUSTMENT TO NORMALIZE TEST YEAR WEATHER**
7 **CONDITIONS.**

8 A. Attachment DGR-5, page 3 of 27, which is based on the same methodology
9 previously accepted by the Commission, shows the reduction to Test Year
10 revenues and expenses that would have occurred if normal weather conditions
11 had been experienced during the Test Year. Actual Test Year weather conditions
12 should be normalized to produce a more reasonable basis for establishing future
13 rate levels. The pre-tax operating income effect of the pro forma adjustment is
14 (\$4,159,000).

15 **Q. HOW WAS NORMAL WEATHER DETERMINED?**

16 A. Using data from the National Weather Service at Phoenix Sky Harbor, an
17 analysis of weather for the ten years ending December 31, 2002 was performed
18 to determine normal weather so that normal consumption can be calculated. This
19 analysis is done on a month-by-month basis for each class of customer. Normal
20 weather for winter months is determined using an analysis of each month's
21 heating degree days. Normal summer weather includes an analysis of both
22 cooling degree days and relative humidity.

23 **Q. WHAT IS THE NEXT STEP IN CALCULATING THE WEATHER**
24 **NORMALIZATION PRO FORMA ADJUSTMENT?**

25 A. The ten-year average ("normal") was calculated and then compared to the Test
26 Year weather. The difference between normal weather and Test Year weather is
then converted to kWh consumption by using a weather coefficient. The weather

1 coefficient is determined by using a mathematical regression analysis of the
2 effect of weather on consumption for each class of customer. The weather
3 normalized kWh consumption is then applied to the December 31, 2003 rate
4 levels. This calculation was made on a month-by-month basis for each class of
5 customer.

6
7 **Q. ARE CORRESPONDING EXPENSES NORMALIZED?**

8 A. Yes. Test Year expenses directly affected by kWh consumption are normalized
9 by multiplying the weather normalized kWh consumption by the Test Year
10 average fuel and purchased power expense and the Test Year average OATT
11 expense. Test Year average fuel and purchased power expense was calculated by
12 dividing the Test Year own load fuel and purchased power expense by Test Year
13 own load sales. Test Year average OATT expense was determined by using the
14 actual amount APS billed to APS for retail network transmission service and
15 ancillary services. The total OATT charges were then divided by the
16 corresponding OATT-billed kWh to determine the Test Year average OATT
17 expense.

18 **4. Annualize customer levels**

19 **Q. PLEASE DESCRIBE THE ADJUSTMENT TO ANNUALIZE**
20 **CUSTOMER LEVELS.**

21 A. Attachment DGR-5, page 4 of 27, shows the increase in Test Year revenues and
22 expenses if the December 31, 2002 level of customers had been receiving
23 service during each month of the Test Year. This adjustment is consistent with
24 previous Commission decisions adopting pro forma adjustments for year-end
25 customer levels. Because new customers connect and old customers disconnect
26 on a continual basis, it is necessary to calculate annualized revenue at year-end

1 to produce the most reasonable Test Year possible. The pro forma adjustment to
2 pre-tax operating income is \$14,570,000.

3
4 **Q. DID YOU SIMPLY MULTIPLY THE END OF TEST YEAR NUMBER
OF CUSTOMERS TIMES THE AVERAGE TEST YEAR
CONSUMPTION PER CUSTOMER?**

5
6 A. No. That would mask the seasonality of the Company's customer base, which is
7 always greater during the winter than the summer.

8 **Q. HOW WAS THE ANNUAL NUMBER OF CUSTOMERS
DETERMINED?**

9
10 A. The customer annualization pro forma adjusts the number of customers each
11 month to be consistent with the number of customers at the end of the Test Year,
12 while preserving the natural seasonality inherent in customer levels. The "ratio
13 of customer change" is the mechanism by which this is accomplished. The ratios
14 are based on the midpoint of each month. Customers added during the first half
15 of the month are assumed to have been billed for consumption during the entire
16 month, while customers added during the second half of the month are assumed
17 to have been billed for zero consumption for that month. Accordingly, for
18 December 2002, customers assumed added during the second half of the month
19 have not been billed for $1/24^{\text{th}}$ of the test year. Customers added after the
20 midpoint of November 2002 represent $3/24^{\text{th}}$ of the annual increase in
21 customers, which would have been billed for November if they had been in
22 effect as of the start of November. Likewise, $5/24^{\text{th}}$ for customers added after the
23 midpoint of October 2002, $7/24^{\text{th}}$ for customers added after the midpoint of
24 September 2002, and so forth.
25
26

1 **Q. PLEASE DESCRIBE HOW THE CONSUMPTION IS DETERMINED.**

2 A. The monthly adjustments to customer counts are then multiplied by the weather
3 normalized kWh usage for residential and general service classes, or the actual
4 usage for the other classes, which are not weather normalized. The resulting
5 kWh adjustment is then applied to the December 31, 2003 rate levels. This
6 calculation was made on a month-by-month basis for each class of customer.

7 **Q. DO CORRESPONDING EXPENSES NEED TO BE ADJUSTED?**

8 A. Yes. As is done in the weather normalization pro forma adjustment, Test Year
9 expenses are then normalized by applying the kWh adjustment to the Test Year
10 average fuel and purchased power expense and the Test Year average OATT
11 expense. Additionally, an increase in customer accounts expense is included in
12 the pro forma because, in addition to fuel and purchased power and OATT
13 expenses, non-payroll related customer accounts and customer service and
14 information expenses increase incrementally as the number of customers
15 increases.

16
17 **Q. HOW WAS THE ADJUSTMENT FOR CUSTOMER ACCOUNTS
EXPENSE DETERMINED?**

18 A. The customer accounts expense was determined using Test Year Customer
19 Accounts Expenses (FERC Accounts 901 through 905) and Customer Service
20 and Informational Expenses (FERC Accounts 907 through 910) and removing
21 the payroll expenses associated with these accounts. Payroll expenses are
22 removed because incremental increases in the number of customers are not
23 expected to significantly impact the time associated with customer accounts and
24 customer service expenses. The remaining amount was allocated to each
25 customer class, divided by 12 to arrive at a monthly average then divided by the
26

1 average number of customers during the 12 months ending December 31, 2002.
2 The resulting cost per customer per month was multiplied by the monthly
3 customer adjustment by customer class to arrive at an amount for the pro forma
4 adjustment.

5
6 **Q. WHAT IS THE INTENDED OVER-ALL EFFECT OF THE APS**
7 **CUSTOMER ANNUALIZATION, WEATHER NORMALIZATION AND**
8 **RATE ANNUALIZATION PRO FORMA ADJUSTMENTS YOU JUST**
9 **DISCUSSED?**

10
11 **A.** The impact of combining these three pro forma adjustments is to apply an
12 annualized year-end 2003 rate level to adjusted 2002 consumption.

13
14 **Q. HAS THE COMMISSION PREVIOUSLY ACCEPTED SUCH**
15 **ADJUSTMENTS?**

16
17 **A.** Yes, several times. For example, in Decision Nos. 55228 and 55931, the
18 Commission accepted similar pro forma adjustments.

19
20
21 **5. Schedule 1 changes**

22
23 **Q. WHY HAS APS MADE AN ADJUSTMENT IN ATTACHMENT DGR-5,**
24 **PAGE 5 OF 27, FOR SCHEDULE 1 CHANGES?**

25
26 **A.** As discussed in APS witness David J. Rumolo's testimony, the Company is
proposing changes to Schedule 1, which sets forth the general terms and
conditions of service. The pro forma adjustment shown on Attachment DGR-5,
page 5 of 27, reflects the impact to operating income associated with the
proposed APS Schedule 1 changes. The revenue impact was calculated by
comparing the difference between the proposed and current charges and
applying that difference to the actual number of times work was performed
during the Test Year. Operations expense was decreased to reflect the savings to
APS when a customer chooses to forego a paper bill and, instead, uses the
Internet to review and pay for electric service. These savings were calculated by

1 estimating the reduced cost to APS when a bill is not printed or mailed (\$4.176
2 annually per customer), as well as the net reduced cost of using electronic
3 payment processing rather than payment by check (\$1.08 annually per
4 customer). This amount was almost entirely offset by the \$5.00 incentive given
5 to customers for foregoing paper bills. The net savings were then applied to the
6 number of customers foregoing paper bills in the Test Year. The pre-tax
7 operating income pro forma adjustment is \$82,000.

8
9 **6. Base rate component of EPS**

10 **Q. PLEASE DESCRIBE THE PRO FORMA ON ATTACHMENT DGR-5,**
11 **PAGE 6 OF 27, RELATED TO THE BASE RATE COMPONENT OF**
12 **THE COMPANY'S SYSTEM BENEFITS CHARGE ("SBC"), WHICH IS**
13 **USED TO FUND THE ENVIRONMENTAL PORTFOLIO STANDARD**
14 **("EPS").**

15 **A.** This pro forma adjustment merely reflects the Company's accounting for the \$6
16 million authorized in the SBC to partially fund the EPS. On a monthly basis,
17 during the Test Year, an accounting entry was recorded to remove that
18 component of the SBC from revenues and record it as a contribution-in-aid-of-
19 construction. Because the amounts were charged to that balance sheet account
20 rather than an Operation and Maintenance ("O&M") account, they are not
21 reflected in the Test Year operating results. The pro forma adjustment is needed
22 to properly reflect for ratemaking treatment revenues and expenses related to the
23 base rate portion of the SBC used to fund the EPS. The pro forma adjustment to
24 pre-tax operating income is (\$737,000).

25 **Q. HOW WAS THE PRO FORMA INCREASE TO OPERATING**
26 **REVENUES CALCULATED?**

A. The pro forma amount to be included in revenues for the base rate component of
EPS was arrived at by an analysis of the actual revenue amounts recorded during

1 the Test Year. While originally booked as revenues, the revenue amounts were
2 reversed with corresponding accounting entries made to offset the costs
3 associated with compliance with the EPS. The pro forma adjustment merely
4 restores the original accounting treatment of these amounts as revenues.

5 **Q. HOW WAS THE PRO FORMA ADJUSTMENT TO EXPENSES**
6 **DETERMINED?**

7 A. The pro forma amount to be included for expense reflects the amount (in this
8 case \$6,000,000) previously allowed by the Commission in base rates for the
9 EPS.

10 **Q. WHY IS THERE A DIFFERENCE BETWEEN THE REVENUE PRO**
11 **FORMA AMOUNT AND THE EXPENSE PRO FORMA AMOUNT?**

12 A. This is merely the result of a small timing difference between the date an EPS
13 expenditure was made and the date revenues were collected.

14 **7. Fuel, purchased power and off-system sales**

15 **Q. WHY WAS IT NECESSARY TO CALCULATE A PRO FORMA**
16 **ADJUSTMENT TO TEST YEAR FUEL AND PURCHASED POWER**
17 **EXPENSE AS SHOWN ON ATTACHMENT DGR-5, PAGE 7 OF 27, AND**
18 **TEST YEAR OFF-SYSTEM SALES AS SHOWN ON ATTACHMENT**
19 **DGR-5, PAGE 8 OF 27?**

20 A. There are two primary reasons to normalize Test Year fuel and purchased power
21 expense. First, the fuel and purchased power expense should be adjusted to
22 reflect normalized outages at the generation facilities and known changes to
23 generating capability, both of which affect the number of kWh produced by a
24 particular generating unit. Second, Test Year fuel and purchased power expense
25 should be recalculated using fuel and purchased power prices more closely
26 resembling those anticipated to occur when the rates requested in this
proceeding would become effective. Such prices not only impact the per kWh

1 cost of a particular generator, but also the number of kWh that generator would
2 have produced given its duty cycle. The off-system sales pro forma adjustment
3 is a direct result of and uses the same fuel and purchased power prices as the pro
4 forma adjustment to fuel and purchased power.

5
6 **Q. WHAT WERE THE ASSUMPTIONS USED TO CALCULATE THE PRO
FORMA ADJUSTMENT FOR FUEL AND PURCHASED POWER
EXPENSE?**

7 The assumptions used in the development of the fuel and purchased power
8 expense and off-system sales pro forma adjustments are basically the same as
9 those used in the development of the 2003 Fuel Budget and the January 2003
10 resource and needs assessment filed with the Commission for Track B [see
11 Decision No. 65743 (March 14, 2003)]. Those adjustments have been updated,
12 however, to reflect the effects of the Track B results and other known changes to
13 fuel and purchased power costs.

14
15 **Q. HOW IS THE PRO FORMA ADJUSTMENT FOR FUEL AND
PURCHASED POWER EXPENSE DETERMINED?**

16 A. Using the output of a computer modeling run, an average ¢/kWh for fuel and
17 purchased power cost is calculated and compared to the average Test Year fuel
18 and purchased power costs. The difference is then multiplied by Test Year retail
19 kWh sales as adjusted for weather and customer level annualization. This
20 produces a pro forma adjustment increasing fuel and purchased power costs and
21 thereby adjusting pre-tax operating income by (\$120,584,000).

22
23 **Q. DOES A FUEL AND PURCHASED POWER PRO FORMA REQUIRE A
CORRESPONDING OFF-SYSTEM SALES PRO FORMA?**

24 A. Yes. The assumptions underlying the fuel and purchased power pro forma
25 adjustment, such as using 2003 purchased power price and gas prices, 2003
26

1 budgeted consumption, etc., dictate that the amount and price of off-system sales
2 also will change for two primary reasons. First, the market price for power and
3 natural gas determine when it is economical for the Company to make off-
4 system sales and the potential quantity of such sales. Second, the APS
5 generation is first used to economically serve native load with the balance of the
6 generation being made available for off-system sales. The use of the 2003
7 budgeted consumption changes the amount of native load being served by APS
8 generation and, therefore, the amount of generation available for off-system
9 sales. The off-system sales adjustment associated with the fuel and purchased
10 power pro forma adjustment results in a pro forma adjustment to pre-tax
11 operating income of \$23,668,000.

12 8. PWEC Units

13 **Q. WHY HAS APS MADE AN ADJUSTMENT AS SHOWN IN**
14 **ATTACHMENT DGR-5, PAGE 9 OF 27, FOR THE PWEC UNITS?**

15 **A.** As described above and in the testimony of Mr. Wheeler and Mr. Bhatti, APS is
16 proposing to include the PWEC Units in base rates. The pro forma adjustment
17 shown on Attachment DGR-5, page 9 of 27, reflects the operating income
18 impact of inclusion of these assets.

19 **Q. DOES THE OPERATING INCOME PRO FORMA ADJUSTMENT**
20 **HAVE SEVERAL COMPONENTS? IF SO, WOULD YOU LIST ALL OF**
21 **THESE COMPONENTS?**

22 **A.** Yes. There are nine components to this pro forma adjustment:

- 23 1) Fuel and purchased power expense,
- 24 2) Off-system sales,
- 25 3) Operations expense,
- 26 4) Maintenance expense,

- 1 5) Depreciation and amortization expense,
- 2 6) Administrative and general expense,
- 3 7) Property tax,
- 4 8) Change in overall cost of capital, and
- 5 9) Income taxes, including the effect of increased interest deductions.

6
7 **Q. WOULD YOU PLEASE EXPLAIN THE FIRST TWO COMPONENTS?**

8 A. The pro forma adjustment reflects the fuel and purchased power savings
9 associated with dispatching the more efficient PWEC Units rather than using
10 APS existing units or buying economy energy and also includes the additional
11 net margin that will result from increased off-system sales.

12 **Q. WAS A SIMULATION OF THE APS SYSTEM DISPATCH USED TO**
13 **CALCULATE THE OFF-SYSTEM SALES AND FUEL EXPENSE?**

14 A. Yes. A simulation was performed using the same assumptions as were used in
15 the fuel and purchased power and off-system sales pro forma adjustments,
16 except that the PWEC Units were included in the generation dispatch. The
17 modeling parameters for the PWEC Units are consistent with the Track B
18 contract specifications with the exception that West Phoenix CC No. 5 is
19 modeled as if it had been available beginning January 1, 2003. This modeling
20 assumption overstates West Phoenix CC No. 5's impact, at least in 2003, and
21 thus benefits APS customers. The planned maintenance outages are adjusted to
22 reflect a 6-year average outage cycle. The simulation provided information to
23 calculate the average ¢/kWh of fuel and purchased power. This value was
24 compared to the fuel and purchased power costs as adjusted in the previous pro
25 forma. The difference was then multiplied by adjusted Test Year kWh sales.
26

1 Q. PLEASE EXPLAIN COMPONENTS THREE THROUGH SEVEN.

2 A. Components three through seven are additional operating expenses associated
3 with the PWEC Units.

4 Component three, operations expense, reflects the 2003 budgeted operations
5 expense for each of the PWEC Units, except that operations expense for West
6 Phoenix CC Unit No. 5 has been normalized to reflect a full year of operation.

7
8 Component four, maintenance expense, includes two major pieces. The first
9 piece is routine maintenance and is based on the 2003 budget for each of the
10 PWEC Units, except that maintenance expense for West Phoenix CC Unit No. 5
11 has been normalized to reflect a full year of operation. The second piece is for
12 overhaul maintenance. This amount was determined in two parts. Because the
13 Company expects the turbine overhauls for the PWEC combined cycle units to
14 occur on a 12-year cycle, the amount was calculated using a 12-year average. A
15 6-year average was used for other major and minor overhaul expenses. Because
16 the PWEC Units have no historical basis for calculating overhaul expenses, the
17 forecasted 12- and 6-year maintenance budgets were used. Future amounts were
18 restated in 2003 dollars, and an average was calculated.

19 Component five, depreciation and amortization expense for the PWEC Units,
20 reflects one full year of depreciation for each of the units. The depreciation
21 expense was calculated based on the depreciable plant in service at December
22 31, 2002 for the West Phoenix CC No. 4, Saguaro, and Redhawk Units. The
23 estimated plant in service at the planned commercial operations date, June 2003,
24 was used to calculate the depreciation expense for West Phoenix CC No. 5.
25
26

1 Component six, administrative and general expenses ("A&G"), includes 2003
2 budgeted A&G expenses at each of the PWEC Units. Included in many of the
3 components discussed are allocated costs from the APS and Pinnacle West
4 shared services organizations.

5 Component seven, property taxes for the PWEC Units, were forecasted for 2005
6 based on anticipated December 31, 2003 plant in service balances and the
7 current valuation factor, assessment rate and property tax rates.
8

9 **Q. HAVE YOU INCLUDED IN THE PRO FORMA ADJUSTMENT THE**
10 **BENEFIT TO CUSTOMERS OF A REDUCED WEIGHTED COST OF**
11 **DEBT AND A CHANGE IN THE COMPANY'S CAPITAL**
12 **STRUCTURE?**

13 A. Yes. I have included in the Electric Operating Revenue line the benefit to
14 customers of including the PWEC Units related debt as part of the Company's
15 permanent capital structure. As part of APS' acquisition of the PWEC Units, the
16 debt owed by PWEC to APS will be cancelled and the loans obtained by APS in
17 May 2003 will be treated as utility debt for ratemaking purposes. The impact of
18 including this \$500 million debt lowers the Company's overall long-term
19 weighted cost of debt from 5.8% to 5.7% and changes the percentage of debt in
20 the capital structure from approximately 50% to 55%. This lowers the overall
21 cost of capital from 8.67% to 8.31%. The change in the rate of return has been
22 applied to the Test Year and pro forma adjustment rate base amounts with the
23 resulting savings included in the PWEC Units pro forma adjustments.

24 The general income tax benefit associated with the additional tax deductions for
25 interest associated with the \$500 million debt issuance in our capital structure
26 also has been reflected in the pro forma. The final component, the income tax
calculation, includes this benefit and also includes a specific additional

1 deduction for the synchronized interest expense associated with the addition of
2 the PWEC Units to rate base. The deduction was determined using the Test Year
3 interest rate and capital structure.

4 **Q. WHAT IS THE TOTAL NET INCOME PRO FORMA ADJUSTMENT**
5 **FOR THE PWEC UNITS?**

6 A. The total after-tax pro forma adjustment for the PWEC Units is an increase in
7 operating income of \$12,776,000.

8 **9. Annualize payroll**

9 **Q. DID APS ANNUALIZE TEST YEAR PAYROLL?**

10 A. Yes. Attachment DGR-5, page 10 of 27, shows an adjustment to Test Year pre-
11 tax operating income of (\$1,031,000). This annualizes the payroll and payroll
12 tax expense levels to 2002 year-end employee levels and March 2003 wage
13 levels. The adjustment is a net increase in Test Year operating expenses, with
14 the higher costs associated with a rising average salary partially offset by
15 reductions in employee levels resulting from the Company's 2002 voluntary
16 severance program. The payroll adjustment is consistent with payroll
17 annualization adjustments authorized by the Commission in prior APS cases.

18 **Q. HOW DID APS CALCULATE THE PAYROLL ANNUALIZATION?**

19 A. The first step in calculating the payroll annualization was to determine the Test
20 Year monthly employee counts and wages. Because there are different employee
21 categories (e.g., union, performance review), the calculation was done for each
22 of the various categories and was determined separately for APS, Pinnacle West
23 and Marketing & Trading ("M&T"). Pinnacle West and M&T are included
24 because they provided various services to APS during the Test Year. The
25 escalated March 2003 average wage was calculated and compared to each
26

1 month's average wage for each employee category for each entity. This amount
2 was multiplied by the actual employee count to determine the wage
3 annualization.

4 Next, the December 2002 employee count was compared to each month's
5 employee count for each employee category for each company. This difference
6 was then multiplied by the escalated March 2003 wage to arrive at the employee
7 annualization. The addition of the wage annualization and the employee
8 annualization results in a total payroll annualization. Payroll taxes were then
9 calculated using the annualized payroll and the statutory tax rates.
10

11 **Q. DOES THE TOTAL PAYROLL ADJUSTMENT GO TO O&M?**

12 A. No. The total payroll and payroll taxes annualizations need to be allocated to
13 exclude from O&M payroll and taxes that, for example, are capitalized. This
14 was accomplished by calculating the percentage of APS O&M payroll to total
15 payroll during the Test Year for each entity. The resulting O&M payroll and
16 payroll taxes were allocated to fuel, operations (excluding fuel) and maintenance
17 based on the Test Year payroll amounts booked to each of these activities.
18

19 **10. Employee severance**

20 **Q. DID APS OFFER A VOLUNTARY EMPLOYEE SEVERANCE DURING THE TEST YEAR?**

21 A. Yes. During the Test Year, the Company offered a voluntary severance package
22 to employees. The benefit of the employee reductions is reflected in the previous
23 payroll annualization adjustment.
24
25
26

1 Q. **WHAT WAS THE TEST YEAR EXPENSE ASSOCIATED WITH THE**
2 **VOLUNTARY EMPLOYEE SEVERANCE?**

3 A. Test Year O&M expenses include costs associated with employees accepting the
4 voluntary severance package. APS proposes, for ratemaking purposes, to
5 levelize this severance amount over three years. However, because all of the
6 severance cost was actually booked in the Test Year, two-thirds of the recorded
7 expense and amounts to be recovered from power plant participant owners for
8 their share of the severance cost needed to be removed from the Test Year. The
9 pro forma adjustment to pre-tax operating income is \$23,155,000.

10 **11. Employee benefits adjustment**

11 Q. **PLEASE EXPLAIN THE NEED FOR THE EMPLOYEE BENEFITS PRO**
12 **FORMA ADJUSTMENT.**

13 A. This adjustment is necessary to appropriately recognize the costs associated with
14 pension, Other Post-retirement Employee Benefit ("OPEB") and Employee
15 Savings plans costs.

16 While the Company's pension and OPEB funds have performed well both
17 historically and in recent years, the steep decline in the overall investment
18 markets has caused the market value of the plan funds to decrease significantly.
19 The decreased value of the funds combined with much lower interest rates and
20 increased medical costs means the Company will incur increased expenses
21 related to the plans. Lower interest rates are a significant driver in determining
22 pension and OPEB obligations, which in turn increases the related costs. These
23 factors are responsible for approximately 90% of the employee benefits pro
24 forma adjustment. The pro forma adjustment also recognizes the increased costs
25 associated with the Employee Savings Plan.
26

1 **Q. HOW WAS THE EMPLOYEE BENEFITS PRO FORMA ADJUSTMENT**
2 **DETERMINED?**

3 A. First, the total change in pension, OPEB and Employee Savings Plan expenses
4 was determined. The total amount included all of the Pinnacle West Companies
5 and was the difference between actual 2002 and the 2003 expenses determined
6 by our actuaries, Towers Perrin.

7 **Q. HOW DID YOU DETERMINE THE AMOUNT OF INCREASED**
8 **BENEFITS COSTS PROPERLY ALLOCABLE TO APS O&M?**

9 A. An allocation factor was calculated and applied to the total change in benefit
10 cost. This allocation factor was determined by analyzing 2002 actual benefits
11 expense booked to APS O&M versus the total benefit costs for Pinnacle West's
12 pension, OPEB and Employee Savings plans. A final allocation to fuel,
13 operations (excluding fuel) and maintenance was then done based on the Test
14 Year payroll percentage of each of these types of expenses to total Test Year
15 O&M payroll. The pro forma adjustment to pre-tax operating income is
16 (\$24,818,000).

17 **12. On-going Electric Competition Rules compliance**

18 **Q. IS THERE AN OPERATING INCOME PRO FORMA ADJUSTMENT**
19 **RELATED TO COMPLIANCE WITH THE ELECTRIC COMPETITION**
20 **RULES?**

21 A. Yes. As shown on Attachment DGR-5, page 13 of 27, there is a pro forma
22 adjustment for the on-going costs of complying with the Electric Competition
23 Rules.

24 **Q. PLEASE EXPLAIN WHY THE PRO FORMA ADJUSTMENT SHOWN**
25 **ON ATTACHMENT DGR-5, PAGE 13 OF 27, IS NEEDED.**

26 A. The Test Year operating costs do not include the costs the Company incurred to
comply with the Electric Competition Rules because these costs were deferred

1 as a Regulatory Asset. This adjustment is necessary to allow APS full and timely
2 recovery of the on-going portion of costs. Treatment of the deferred regulatory
3 asset is discussed later in my testimony.

4 **Q. HOW WAS THE ADJUSTMENT CALCULATED?**

5 A. An analysis of amounts booked in 2002 to the Electric Competition Rules
6 compliance deferred asset was performed to determine which costs would
7 continue to be incurred to comply with the Electric Competition Rules. Payroll-
8 related costs were included, as well as the incremental on-going costs associated
9 with information technology. APS' share of the Arizona Independent
10 Scheduling Administrator's ("AISA") current 2003 budget amount also was
11 included. The summation of these costs results in a pre-tax operating income pro
12 forma adjustment for ongoing Electric Competition Rules compliance activities
13 of (\$1,477,000).
14

15 **13. ISFSI**

16 **Q. PLEASE EXPLAIN THE INCOME STATEMENT PRO FORMA**
17 **ADJUSTMENTS FOR SBC WHICH IS USED TO FUND THE ISFSI.**

18 A. APS is requesting recovery through regulated rates of (1) the on-going costs
19 associated with ISFSI and (2) an amortized portion of the previously discussed
20 deferred amounts. The proposed treatment for on-going ISFSI costs is shown on
21 Attachment DGR-5, page 14 of 27, and the pro forma adjustment for deferred
22 amounts is shown on Attachment DGR-5, page 21 of 27.

23 **Q. PLEASE EXPLAIN THE PRO FORMA ADJUSTMENT FOR ON-**
24 **GOING ISFSI COSTS.**

25 A. The on-going ISFSI pro forma adjustment includes both pre-shutdown activities
26 and post-shutdown activities. APS plans on placing as much of the costs

1 associated with post-shutdown activities into the external qualified
2 decommissioning trusts as allowed under the federal income tax rules. To
3 qualify for favorable tax treatment, the amounts placed into the qualified
4 decommissioning trusts must actually be collected from ratepayers as part of
5 cost-of-service. This requires a specific ruling from the Commission.
6 Attachment DGR-6 contains, for each Palo Verde generating unit, the cost-of-
7 service amounts to actually be collected from retail ratepayers. Such a schedule
8 should be attached to any Commission order accepting these amounts. The pre-
9 tax operating income impact of on-going ISFSI, both pre- and post-shutdown for
10 all three Palo Verde units is (\$2,881,000).

11 **Q. WHY DOES THE PRO FORMA ADJUSTMENT SHOWN ON**
12 **ATTACHMENT DGR-5, PAGE 14 OF 27, APPEAR AS A FUEL**
13 **EXPENSE?**

14 A. The ongoing ISFSI expense is properly booked to FERC Account 518, "Nuclear
15 Fuel Expense." However, for ratemaking purposes, these amounts will be
16 functionalized to the SBC pursuant to Rule 1608.

17 **Q. PLEASE EXPLAIN THE PRO FORMA ADJUSTMENT FOR ISFSI**
18 **ASSETS.**

19 A. This pro forma adjustment is needed to amortize the regulatory asset, which I
20 discussed previously. Similar to the on-going ISFSI pro forma adjustment, the
21 ISFSI regulatory asset pro forma adjustment contains both pre-shutdown and
22 post-shutdown elements. The Company proposes to amortize the costs
23 associated with pre-shutdown activities over a five-year period. For costs
24 associated with post-shutdown activities the Company proposes: (1) for Units 1
25 and 3, to amortize the costs over the license period (through December 31, 2024
26 and March 25, 2027, respectively); and (2) for Unit 2, over the term of the

1 sale/leaseback agreement (through December 31, 2015). APS plans to place as
2 much of these amortized amounts associated with the post-shutdown
3 amortization into the external qualified decommissioning trusts as allowed under
4 the federal income tax rules. To qualify for the favorable tax treatment, the
5 amounts placed into the qualified decommissioning trusts must actually be
6 collected from ratepayers as part of cost-of-service. This requires a specific
7 ruling from the Commission. Attachment DGR-6 contains, for each Palo Verde
8 generating unit, the cost-of-service amounts to actually be collected from retail
9 ratepayers. Such a schedule should be attached to any Commission order
10 accepting these amounts. Additionally, for ratemaking purposes, these amounts
11 will be functionalized to the SBC pursuant to Rule 1608. This pro forma
12 adjustment for both pre- and post-shutdown ISFSI regulatory asset amortization
13 of (\$4,963,000) to after-tax operating income also includes the "interest
14 synchronization" adjustment to income taxes associated with the rate base pro
15 forma adjustment.

16 14. Transmission expense

17 **Q. WHY IS APS MAKING AN OPERATING INCOME PRO FORMA**
18 **ADJUSTMENT REGARDING TRANSMISSION EXPENSES?**

19 **A.** As previously discussed, APS is proposing to remove all Test Year transmission
20 rate base and expenses and replace those costs with an expense calculated using
21 the OATT rate. The pro forma adjustment shown on Attachment DGR-5, page
22 15 of 27, merely reflects the operating income impact of that proposal. Mr.
23 Propper's testimony describes the methodology for determining the pre-tax pro
24 forma adjustment. After synchronizing the interest associated with the rate base
25 pro forma, the after-tax operating income adjustment is (\$43,617,000). Note that
26

1 this adjustment appears much larger than is actually the case because it reflects
2 all of the capital costs associated with transmission as an operating expense.

3
4 **15. Interest on customer deposits**

5 **Q. PLEASE EXPLAIN THE ANNUALIZED ADJUSTMENT FOR**
6 **CUSTOMER DEPOSIT INTEREST EXPENSE SHOWN ON**
7 **ATTACHMENT DGR-5, PAGE 16 OF 27.**

8 **A.** This pro forma adjustment reflects the annualized interest cost associated with
9 customer deposits (interest expense) as an operating expense due to the
10 treatment of the customer deposit balances at the end of the Test Year as a rate
11 base deduction. This treatment conforms with the treatment used by the
12 Commission in previous Company rate cases. The amount of the pro forma
13 adjustment was calculated by applying a 2.2% annual interest rate to the
14 December 31, 2002 outstanding deposit balance. The annual interest rate is the
15 rate required by our tariffs to be paid customers on their deposits – the
16 established one year Treasury Constant Maturities rate, effective on the first
17 business day of each year, as published on the Federal Reserve Website. The
18 2002 interest rate was 2.2%. This resulted in a pre-tax operating income
19 adjustment of (\$875,000).

20 **16. Normalize generation maintenance**

21 **Q. PLEASE DESCRIBE HOW YOU DEVELOPED NORMALIZED PRO**
22 **FORMA ADJUSTMENTS FOR GENERATION MAINTENANCE**
23 **EXPENSE.**

24 **A.** In Attachment DGR-5, page 17 of 27 and page 18 of 27, I have adjusted Test
25 Year expenses to normalize maintenance levels for the Company's production
26 plant-in-service at December 31, 2002. Because maintenance schedules vary
from year to year, this adjustment is necessary to develop a reasonable basis for
the establishment of future rates. Any single year, such as the Test Year, will

1 almost never represent the average maintenance expense levels, that can
2 reasonably be expected when rates established in this case will be in effect.
3 Thus, every APS rate case of which I am aware has made this sort of
4 normalizing adjustment. For the non-nuclear units, normal maintenance levels
5 are determined by averaging the maintenance expense at each power plant using
6 a six-year average maintenance cycle. Normal Palo Verde expenses are based on
7 historical expenses for a three year period. For all production units, only
8 historical overtime labor costs were adjusted to present cost levels based on
9 historical labor increases. Regular labor costs have been excluded from this
10 adjustment, as anticipated permanent staffing levels already are included in the
11 payroll annualization adjustment. Non-labor maintenance costs were adjusted to
12 current cost levels using the Handy-Whitman cost indices.

13 The non-nuclear pro forma adjustment also includes the costs associated with
14 maintaining the renewable generation resources developed under the EPS. These
15 O&M costs were not included in the unadjusted Test Year. The costs were
16 developed using the Company's anticipated renewable installed capacity.
17 Although actual average O&M expenses are anticipated to be higher, the ¢/kWh
18 was capped at 3¢/kWh. A three-year average of the anticipated O&M expense
19 for the years 2004 through 2006 was calculated and used in the pro forma
20 adjustment.

21
22 The total non-nuclear pre-tax operating income adjustment is \$6,014,000 and the
23 nuclear pre-tax operating income adjustment is \$945,000.
24
25
26

1 **17. Annualize depreciation and amortization**

2 **Q. HAS APS MADE A PRO FORMA ADJUSTMENT ON ATTACHMENT**
3 **DGR-5, PAGE 19 OF 27, TO ANNUALIZE DEPRECIATION AND**
4 **AMORTIZATION.**

5 A. Yes. APS witness Laura L. Rockenberger explains in her testimony the
6 Company's proposal regarding depreciation and amortization. The pro forma
7 adjustment of (\$3,027,000) to pre-tax operating income shown on Attachment
8 DGR-5, page 19 of 27, merely reflects that proposal.

9 **18. Regulatory assets**

10 **Q. PLEASE EXPLAIN THE BASIS FOR THE REGULATORY ASSETS**
11 **PRO FORMA ADJUSTMENT SHOWN ON ATTACHMENT DGR-5,**
12 **PAGE 20 OF 27.**

13 A. There are two Commission Decisions relevant to this question. First, pursuant to
14 Decision No. 59601 (April 24, 1996), APS is authorized to recover certain
15 specified regulatory assets through July 1, 2004. Second, Decision No. 61973
16 changed the pattern of regulatory asset recovery set by Decision No. 59601 and
17 allowed for the creation and amortization of certain new regulatory assets, such
18 as the reasonable and prudent costs of compliance with the Electric Competition
19 Rules.

20 **Q. PLEASE EXPLAIN THE DEPRECIATION AND AMORTIZATION**
21 **AMOUNT INCLUDED IN THE REGULATORY ASSETS PRO FORMA**
22 **ADJUSTMENT SHOWN ON ATTACHMENT DGR-5, PAGE 20 OF 27.**

23 A. The reduction to amortization includes the removal of \$114,980,000
24 representing the Test Year Regulatory Asset amortization authorized in
25 Commission Decision No. 61973. As of July 1, 2004, the date new rates are
26 anticipated to become effective, this asset will be fully amortized and no more
amortization expense for this asset will be incurred. Therefore, it is appropriate
to remove this amount from depreciation and amortization expense.

1 **Q. HAVE ADDITIONAL AMOUNTS BEEN INCLUDED IN**
2 **DEPRECIATION AND AMORTIZATION?**

3 A. Yes. The Company proposes a five-year amortization of approximately \$16
4 million of regulatory assets, which are remaining in SFR Schedule B-1's
5 regulatory asset and liability balances after removing the amortization through
6 June 30, 2004 and the previously discussed ISFSI regulatory asset. The
7 accelerated amortization pursuant to the 1999 Settlement was based upon the
8 regulatory assets balance at that time. Since then, additional regulatory assets
9 were booked for on-going items such as unamortized gains and losses on
10 reacquired debt; additions/adjustments for nuclear decontamination; and the
11 Palo Verde Unit 2 rent levelization consistent with previous Commission orders.

12 **Q. DOES THE INCOME TAX CALCULATION TAKE INTO ACCOUNT**
13 **"INTEREST SYNCHRONIZATION" FOR THE REGULATORY**
14 **ASSETS RATE BASE PRO FORMA?**

15 A. Yes. When combined with the asset amortization adjustments, this results in a
16 pro forma adjustment to after-tax operating income of \$66,893,000.

17 **19. Reversal of settlement write-off**

18 **Q. PLEASE DESCRIBE THE PRO FORMA FOR REVERSAL OF THE**
19 **SETTLEMENT WRITE-OFF.**

20 A. As discussed previously, APS is proposing to include in its base rates the
21 reversal of the settlement write-off. The after-tax operating income pro forma
22 adjustment of (\$7,821,000) reflects a 15-year amortization of the reversal as
23 well as the interest synchronization impact on income taxes from the Rate Base
24 pro forma adjustment. As discussed by Mr. Wheeler, fifteen years was selected
25 to minimize customer impact while providing for a meaningful, timely recovery
26 of this past write-off.

1 20. Nuclear decommissioning fund

2 **Q. PLEASE EXPLAIN THE NUCLEAR DECOMMISSIONING FUNDS**
3 **AND WHAT IS MEANT BY A "QUALIFYING" DECOMMISSIONING**
4 **FUND.**

5 A. Like all nuclear power plants, Palo Verde eventually will need to be
6 decommissioned, an expensive and time consuming process. Regulatory
7 agencies throughout the country, including the Commission, have required that
8 the cost of this eventual decommissioning be recovered from APS electricity
9 customers during the operating life of the facility.

10 Most of the amounts collected from ratepayers that relate to decommissioning of
11 a nuclear power plant can be deposited into a "qualified" decommissioning trust.
12 A trust is "qualified" to the extent it meets certain requirements set forth in the
13 Internal Revenue Code and related regulations. A qualified decommissioning
14 trust is afforded significant income tax benefits vis-à-vis other funding
15 alternatives. This favorable tax treatment is twofold. First, contributions to a
16 qualified decommissioning trust are deductible for federal income tax purposes
17 in the year made to the extent these amounts are actually collected from
18 ratepayers as part of cost-of-service. Furthermore, the investment earnings of the
19 assets within the trust are taxed at a federal income rate of 20% versus 35% if
20 the investment earnings occurred outside of the qualified decommissioning trust.

21 The Nuclear Regulatory Commission ("NRC") and most state regulators prefer
22 the external funding option both because of the increased security of the funding
23 for its intended purpose and because of the income tax benefits afforded
24 qualified decommissioning trusts.

1 **Q. PLEASE EXPLAIN THE NEED FOR A PRO FORMA ADJUSTMENT**
2 **FOR THE NUCLEAR DECOMMISSIONING FUND.**

3 A. Two basic components associated with determining the annual amounts to
4 deposit into the decommissioning fund have changed. These are the escalation
5 rate and the earnings assumption.

6 Projections of the decommissioning costs are done in current year's dollars. The
7 escalation rate is used to account for the inflation that will occur between now
8 and the time of decommissioning. The escalation rate should reflect increases in
9 payroll and material costs. The Consumer Price Index has grown at an average
10 annual rate of 4.14% over the past 25 years. APS is proposing to use a rounded
11 4% as the annual escalation rate.

12 The earnings assumption is used to determine how much the asset will grow
13 between now and the time of decommissioning. APS is proposing to use an
14 after-tax earnings assumption of 4.8%. This amount was determined using
15 JPMorgan's investment return assumptions for Aggregate Bonds of 5.25% and
16 Large Cap Equity of 7.5%. Using a 60% stocks/40% bonds asset allocation, the
17 applicable tax rates for qualifying and non-qualifying funds, and the anticipated
18 allocation between qualifying and non-qualifying funds, a 4.8% after tax
19 earnings assumption was calculated. The revised escalation rate and earnings
20 assumption produces an annual funding requirement of approximately \$19.2
21 million.

22
23 **Q. ARE THERE CONSEQUENCES OF UNDER-FUNDING?**

24 A. Yes. The Participants in Palo Verde have established a series of rules relating to
25 the decommissioning fund. Amendment 13 to the Participation Agreement
26 provides that each Participant monitors the funding of each other's

1 decommissioning funds to ensure that adequate funds are available at the end of
2 the plant life. At the end of each calendar year, each Participant, including APS,
3 has a required minimum amount that must be funded, known as the "floor." If
4 APS falls below the floor, it must contribute additional dollars to restore the
5 decommissioning fund to the funding curve's required level. In all likelihood,
6 these catch-up contributions could not be contributed to the qualified
7 decommissioning trusts, which would further exacerbate the problem. The APS
8 fund is currently above the floor but not funded fully to the required curve.

9
10 The goal should be to adequately fund the decommissioning liability without
11 over- or under-funding. If the liability is materially over-funded, it indicates
12 current and past customers bore more of a burden for the liability. An under-
13 funded plan indicates current and past customers were charged less than the full
14 cost of power they received from Palo Verde.

15 **Q. IS SPECIFIC COMMISSION ACTION REQUIRED?**

16 A. Yes. As previously mentioned, to qualify for the favorable tax treatment, the
17 amounts must actually be collected from ratepayers as part of cost-of-service. As
18 with the on-going post-shutdown ISFSI and post-shutdown ISFSI regulatory
19 asset amortization, this requires a specific ruling from the Commission.
20 Attachment DGR-6 contains, for each Palo Verde generator, the cost-of-service
21 amounts to actually be collected from retail ratepayers. Such a schedule should
22 be attached to any Commission order accepting these amounts. The impact of
23 this pro forma adjustment for all three Palo Verde generators on pre-tax
24 operating income is (\$7,766,000).
25
26

1 **21. Annualize property tax**

2 **Q. PLEASE DESCRIBE THE COMPANY'S PROPOSED ADJUSTMENT**
3 **TO AD VALOREM (PROPERTY) TAXES.**

4 A. The pre-tax operating income pro forma adjustment of (\$10,199,000) shown on
5 Attachment DGR-5, page 24 of 27, reflects actual plant balances at December
6 31, 2002 and the 2002/2003 tax rates. This type of adjustment previously has
7 been accepted by the Commission.

8 **22. Financing application**

9 **Q. PLEASE EXPLAIN THE ADJUSTMENT FOR INTEREST INCOME**
10 **FROM PWEC.**

11 A. Commission Decision No. 65796 (April 4, 2003) authorized APS to issue non-
12 secured debt in an amount not greater than \$500,000,000 and loan the proceeds
13 to PWEC. The pro forma adjustment is being made to comply with certain
14 conditions specified in Commission Decision No. 65796. The Company has
15 calculated the adjustment consistent with Staff's conditions in that Order,
16 although this methodology overstates the amount of actual APS interest income.
17 It should be noted that the need for this adjustment is independent of the
18 inclusion of the PWEC Units in rate base and the resulting capital structure
19 change. However, the amount of the pro forma adjustment has assumed
20 repayment or cancellation of the PWEC/APS debt on June 30, 2004 and would
21 change if the PWEC Units are not placed in rate base, because in that instance,
22 repayment will likely not occur until 2007.

23 **Q. HOW DID APS CALCULATE THE BASIS POINT (INTEREST)**
24 **DIFFERENTIAL?**

25 A. The net interest income was calculated using \$500 million over 13.5 months and
26 the prescribed 264 basis point differential. A financing end date of June 30,

1 2004 was used to reflect this filing's proposal to include the PWEC Units in
2 base rates, the accompanying transfer of the assets to APS and retirement of the
3 financing. APS is proposing to amortize the interest differential over a five-year
4 period. The amortization will be reflected as a reduction (credit) to operating
5 expense.

6
7 **Q. DID DECISION NO. 65796 HAVE ANOTHER REQUIREMENT AS IT
RELATES TO THE CALCULATION OF THIS PRO FORMA
ADJUSTMENT?**

8
9 **A.** Yes. Decision No. 65796 also required the basis point differential balance to
10 carry an interest rate of six percent. Beginning/ending balances were calculated
11 for each of the five years using a straight-line five-year amortization. An
12 average balance could then be determined for each year. The six percent interest
13 rate was applied to each year's average balance to determine each year's
14 interest. The cumulative interest was divided by five to determine the straight-
15 line interest amortization. The five-year straight-line interest differential
16 amortization was added to the straight-line interest amortization to determine the
17 annual amortization associated with the PWEC financing. As shown on
18 Attachment DGR-5, page 25 of 27, the result of this calculation on pre-tax
19 operating income is \$3,416,000.

20 **23. Income tax/interest synchronization**

21 **Q. PLEASE EXPLAIN THE ADJUSTMENT SHOWN ON ATTACHMENT
22 DGR-5, PAGE 26 OF 27, FOR INCOME TAX AND
SYNCHRONIZATION OF INTEREST.**

23 **A.** This adjustment reflects the synchronization of interest expense using the
24 adjusted December 31, 2002 capital structure and cost of long-term debt, as well
25 as the use of the current statutory income tax rates. The pro forma adjusts after-
26 tax operating income by (\$5,049,000).

1 **24. Miscellaneous adjustments**

2 **Q. PLEASE EXPLAIN THE ADJUSTMENT IN ATTACHMENT DGR-5,**
3 **PAGE 27 OF 27, MISCELLANEOUS ADJUSTMENTS.**

4 A. This pro forma adjusts various miscellaneous expenses from the year ended
5 December 31, 2002. APS has eliminated a number of non-recurring or out of
6 period expenses. APS further excluded from operating expense costs associated
7 with certain employee programs. The total adjustment to pre-tax operating
8 income is \$6,816,000.

9 **Q. WHAT ITEMS ARE INCLUDED IN THE MISCELLANEOUS PRO**
10 **FORMA ADJUSTMENT?**

11 A. There are seven miscellaneous adjustments. I will briefly explain each of them
12 below.

13 The first adjustment removes a write-off that was taken in the Test Year, but
14 related to a prior period, for a Four Corners pulverizer.

15 The second adjustment is being made to include in base rates M&T lease
16 expenses that were not included in the Test Year.

17 The third adjustment is to remove a revenue write-off that was taken during the
18 Test Year. That write-off pertained to a prior period.

19 The fourth adjustment removes the employee programs expense incurred during
20 the Test Year.

21 The fifth adjustment removes income that was received by APS during the Test
22 Year for the early termination of the City of Williams wholesale power
23 agreement. That income was FERC jurisdictional.
24
25
26

1 The sixth adjustment removes certain franchise fees expenses. As with the
2 revenue write-off, these expenses are associated with prior periods.

3 The final adjustment removes the asset divestiture disallowance that was
4 expensed during the Test Year. Because the 1/3 disallowance is not an on-going
5 expense, it is appropriate to remove this cost from Test Year expenses.
6

7 **25. Total operating income adjustments**

8 **Q. WOULD YOU SUMMARIZE THE COMPANY'S ADJUSTED TEST**
9 **YEAR OPERATING RESULTS?**

10 A. Yes. After making the adjustments described in my testimony and applying the
11 jurisdictional allocation factors developed by Mr. Proper, APS had
12 jurisdictional operating revenues of \$1,940,146,000. Jurisdictional Test Year
13 operating expenses were \$1,676,276,000. This produces adjusted jurisdictional
14 operating income of \$263,870,000.

15 **Q. ARE THERE ANY SIGNIFICANT COSTS WHICH HAVE NOT BEEN**
16 **INCLUDED IN THIS RATE REQUEST?**

17 A. Yes. As everyone is aware, the state is experiencing a significant bark beetle
18 infestation of the ponderosa pine forests. This infestation, which has been
19 caused by the prolonged Arizona drought, has resulted in approximately one
20 million dead or dying trees that pose a threat to APS power lines. There will be
21 considerable costs associated with removing these trees, which must be done to
22 preserve system reliability.

23 **Q. WHY HASN'T THE COMPANY INCLUDED THOSE COSTS IN THIS**
24 **REQUEST?**

25 A. As the present time, it is unclear what the magnitude of the costs to APS would
26 be, largely because the Governor has requested federal funds to assist in dealing

1 with this problem and the disposition of those funds is unknown. The Company
2 may need to reflect these costs in its filing when the issue becomes clearer.

3
4 **Q. ARE THERE ANY OTHER COSTS THAT HAVE NOT BEEN INCLUDED IN THIS RATE REQUEST?**

5 A. Yes, there are. For example, the Company has not included the costs associated
6 with the replacement of the steam generator at Palo Verde Unit 2 which is
7 scheduled for this fall.

8
9 **Q. WHY HAS THE COMPANY CHOSEN NOT TO MAKE ADDITIONAL ADJUSTMENTS?**

10 A. The Company's intention has been to seek a rate increase level that would
11 produce reasonable financial results while minimizing the impact on our
12 customers. We believe that our current request does balance these interests.

13 If parties to this proceeding modify the Company's adjustments, it may be
14 necessary to include additional adjustments to maintain the Company's financial
15 health.

16
17 **26. Surcharge adjustment**

18 **Q. IS THE COMPANY REQUESTING RECOVERY OF ANY**
19 **ADDITIONAL REGULATORY ASSETS BEYOND THOSE**
20 **PREVIOUSLY DISCUSSED?**

21 A. Yes. As provided in the 1999 Settlement, APS filed an adjustment mechanism to
22 collect the costs of compliance with the Electric Competition Rules. The
23 adjustment mechanism was titled the Competition Rules Compliance Charge or
24 CRCC. APS is proposing to collect \$49,334,000 plus interest over 5 years under
25 the CRCC. Mr. Propper is sponsoring the base CRCC charge in his testimony
26 and rate schedules. As shown on Schedule H-1, the ¢/kWh charge applied to the
adjusted test year sales is \$8,283,000.

1 **Q. PLEASE EXPLAIN THE AMOUNTS INCLUDED IN THE CRCC.**

2 A. The CRCC consists of three major parts: (1) costs associated with the
3 implementation of Direct Access; (2) costs associated with divestiture of the
4 APS generating assets; and (3) costs associated with implementation of Track B.
5 As required by the 1999 Settlement and the proposed CRCC adjustment
6 mechanism in Docket No. E-01345A-02-0403, the summation of 1, 2 and 3 is
7 then credited/debited by the Competitive Transition Charge ("CTC") multiplied
8 by retail sales consistent with the formula specified in the Settlement.

9 **Q. HOW WAS THE AMOUNT ASSOCIATED WITH DIRECT ACCESS**
10 **IMPLEMENTATION CALCULATED?**

11 A. The asset balance at December 31, 2002 was increased to include the costs the
12 Company will incur from the end of the Test Year (December 31, 2002) through
13 the time rates recovering the asset amortization are anticipated to go into effect
14 (July 1, 2004). Inclusion of future costs is appropriate because the Company
15 must continue to remain in compliance with the Electric Competition Rules.
16 These costs include actual amounts booked in January through April 2003 and a
17 projection for the remaining fourteen months based on the average costs
18 incurred from May 2002 through April 2003. The average was adjusted to
19 reflect known decreases to costs such as the AISA budget reduction. The May
20 2003 projection includes the final loan payment to the AISA. Capitalized
21 interest was added to each month's balance using the actual 2nd quarter 2003
22 interest rate.

1 Q. **HOW WAS THE AMOUNT ASSOCIATED WITH THE ASSET**
2 **DIVESTITURE DETERMINED?**

3 A. Consistent with the reversal of the Settlement write-off discussed by Mr.
4 Wheeler, the asset balance was increased to reflect a reversal of the write-off of
5 one-third of asset divestiture costs.

6 Q. **HOW WAS THE AMOUNT ASSOCIATED WITH THE TRACK B**
7 **IMPLEMENTATION DETERMINED?**

8 A. Actual February through April 2003 expenses associated with the Independent
9 Monitor ("IM") and development of information systems ("IS") were
10 determined. A forecast of additional IM and IS costs also was included. The
11 payments by bidders were used to reduce these expenses. Capitalized interest
12 was included for the period February 2003 through June 2004.

13 Q. **WHAT IS THE BASIS FOR INCLUDING AN ADJUSTMENT FOR CTC**
14 **COLLECTIONS?**

15 A. The 1999 Settlement allowed APS to recover \$350 million net present value
16 through a CTC, which expires on December 31, 2004. If by December 31, 2004,
17 APS has recovered more or less than \$350 million net present value, as
18 determined by a formula in the Settlement, the nominal dollars of the difference
19 will be credited/debited against the costs subject to recovery under the
20 adjustment clause allowed in the 1999 Settlement.

21 Q. **HOW WAS THE CTC ADJUSTMENT DETERMINED?**

22 A. Consistent with the 1999 Settlement, the amount was projected through
23 December 31, 2004 in accordance with Exhibit B of the 1999 Settlement. Actual
24 sales were used to calculate the annual recovery for the years 1999 through
25 2002. Forecasted sales were used to calculate the 2003 and 2004 CTC recovery.
26 An 8.8% discount rate was used to calculate the net present value, resulting in a

1 difference of approximately \$2,918,000. This amount has been used in the pro
2 forma adjustment as a reduction to the CRCC.

3
4 **Q. DOES THIS MEAN THE COMPANY IS CHARGING FOR CTC UNTIL
DECEMBER 31, 2004 EVEN IF RATES GO INTO EFFECT ON JULY 1,
2004?**

5
6 A. No. In fact, because the Company is proposing to implement the new rate
7 schedules (which exclude a CTC component) on July 1, 2004, should a customer
8 choose an alternate energy supplier during the period July 1, 2004 through
9 December 31, 2004, they will get a "free ride" and APS would not collect
10 amounts that are being credited to customers under its proposal.

11 **V. CONCLUSION**

12 **Q. DO YOU HAVE ANY CONCLUDING REMARKS?**

13 A. APS' requested rate increase is necessary for the Company to achieve financial
14 ratios consistent with maintaining even a low investment grade rating. The
15 request also would provide APS the opportunity to earn a return on equity equal
16 to its cost of equity.

17 APS has selected a test period consistent with Commission rules and prior
18 Commission precedent. That test period was then adjusted to make it more
19 representative of normal operations at the time new rates in this docket are
20 approved by the Commission.

21
22 **Q. DOES THAT CONCLUDE YOUR PREFILED DIRECT TESTIMONY IN
THIS PROCEEDING?**

23 A. Yes.
24
25
26

Appendix A
Statement of Qualifications
Donald G. Robinson

Donald G. Robinson is Vice President of Finance and Planning for Arizona Public Service Company. Mr. Robinson is responsible for the Company's financial planning, corporate planning, budgeting, forecasting, accounting, risk management, tax services and supply chain management.

Mr. Robinson was previously Vice President of Regulation and Planning for Arizona Public Service Company. In this position, Mr. Robinson was responsible for the Company's regulatory policies and activities before the Arizona Corporation Commission and the Federal Energy Regulatory Commission, as well as corporate planning.

Prior to the promotion above, Mr. Robinson was Director of Accounting, Regulation and Planning for Arizona Public Service Company. Mr. Robinson had responsibility for the Company's accounting, planning and regulatory policies and activities.

Mr. Robinson joined the Company in 1978 and held a number of supervisory positions in the accounting department. In 1981, he was named manager of Regulatory Affairs and in 1998, Manager of Rates and Regulation. Mr. Robinson was a principal in the consulting firm Micon from 1992-1996. Mr. Robinson has a Bachelor of Science degree in Accounting.

ARIZONA PUBLIC SERVICE COMPANY

REGULATED FINANCIAL INDICATORS WITH
PROPOSED RATE INCREASE EFFECTIVE JULY 1, 2004

Indicator	Projected				
	2001	2002	2003	2004	2005
Adjusted Pre-tax Interest Coverage Ratio ^{/1/}	3.6	2.9	2.4	3.3	3.2
Adjusted Funds from Operations Interest Coverage ^{/1/}	4.9	5.6	3.8	4.3	4.2
Funds from Operations to Adjusted Average Total Debt ^{/1/}	26%	31%	18%	21%	21%
Adjusted Total Debt to Total Capital ^{/1/}	55%	55%	59%	53%	52%
Return on Average Common Equity	12.4%	9.2%	7.9%	11.5%	10.4%
Adjusted Return on Average Common Equity ^{/1/2/}	8.0%	7.9%	6.7%	11.0%	10.4%

^{/1/} Adjusted for the Palo Verde 2 Sale/Leaseback.

^{/2/} Included in calculation is the amortization of \$183 million present value stranded revenue disallowance required by the 1999 Settlement Agreement.

ARIZONA PUBLIC SERVICE COMPANY

REGULATED FINANCIAL INDICATORS
AT PRESENT RATES

Indicator	<u>Projected</u>		
	2003	2004	2005
Adjusted Pre-tax Interest Coverage Ratio ^{1/1}	2.4	2.6	2.1
Adjusted Funds from Operations Interest Coverage ^{1/1}	3.8	3.8	3.5
Funds from Operations to Adjusted Average Total Debt ^{1/1}	18%	18%	16%
Adjusted Total Debt to Total Capital ^{1/1}	59%	55%	56%
Return on Average Common Equity	7.9%	8.4%	6.0%
Adjusted Return on Average Common Equity ^{1/1 1/2}	6.7%	7.8%	6.0%

^{1/1} Adjusted for the Palo Verde 2 Sale/Leaseback.

^{1/2} Included in calculation is the amortization of \$183 million present value stranded revenue disallowance required by the 1999 Settlement Agreement.

ARIZONA PUBLIC SERVICE COMPANY

COST OF LONG-TERM DEBT ⁽¹⁾

Bond Rating	2000	2001	2002	Three-Year Average
Single-A	6.98%	6.29%	4.84%	6.04%
BBB+	7.57%	6.83%	5.72%	6.71%
BBB	7.37%	7.18%	6.60%	7.05%
BBB-	7.72%	7.90%	7.58%	7.73%
Below investment grade	9.78%	8.95%	16.11%	11.61%

⁽¹⁾ Information based on the Lehman Brothers Utility Index; includes all publicly registered deals greater than \$150 million with more than 18 months.

ARIZONA PUBLIC SERVICE COMPANY

Detail of Pro Forma Adjustments to Original Cost Rate Base as Shown on Schedule B-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: PWEC UNITS

Adjustment to Test Year rate base to include the Pinnacle West Energy Units including West Phoenix Combined Cycle No. 4, West Phoenix Combined Cycle No. 5, Redhawk Combined Cycle No. 1, Redhawk Combined Cycle No. 2 and Saguaro Combustion Turbine No. 3.

Line No.	Description	Amount
1.	Gross Utility Plant in Service	\$ 1,021,886
2.	Less: Accumulated Depreciation and Amortization	\$ 73,395
3.	Net Utility Plant in Service	\$ 948,491
4.	Less: Total Deductions	\$ 53,382
5.	Total Additions	\$ -
6.	Total Rate Base	\$ 895,109

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Original Cost Rate Base as Shown on Schedule B-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: REMOVE REGULATORY ASSETS AMORTIZED UNDER PRIOR SETTLEMENT

Adjustment to Test Year rate base to exclude certain net regulatory assets which, pursuant to the terms of the 1999 Settlement Agreement, will be fully amortized by June 30, 2004.

Line No.	Description	Amount
1.	Gross Utility Plant in Service	\$ -
2.	Less: Accumulated Depreciation and Amortization	\$ -
3.	Net Utility Plant in Service	\$ -
4.	Less: Total Deductions	\$ (41,080)
5.	Total Additions	\$ (104,000)
6.	Total Rate Base	\$ (62,920)

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Original Cost Rate Base as Shown on Schedule B-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: INDEPENDENT SPENT FUEL STORAGE INSTALLATION ("ISFSI")
Adjustment to Test Year rate base to include the amount of System Benefits related ISFSI costs anticipated to be accrued between the end of the Test Year and June 30, 2004.

Line No.	Description	Amount
1.	Gross Utility Plant in Service	\$ -
2.	Less: Accumulated Depreciation and Amortization	\$ -
3.	Net Utility Plant in Service	\$ -
4.	Less: Total Deductions	\$ 1,707
5.	Total Additions	\$ 4,321
6.	Total Rate Base	\$ 2,614

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Original Cost Rate Base as Shown on Schedule B-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: REVERSAL OF SETTLEMENT WRITE-OFF

Adjustment to Test Year rate base to restore the pre-tax \$234 million deduction taken by the Company in consideration of benefits previously agreed to under the 1999 Settlement.

Line No.	Description	Amount
1.	Gross Utility Plant in Service	\$ -
2.	Less: Accumulated Depreciation and Amortization	\$ -
3.	Net Utility Plant in Service	\$ -
4.	Less: Total Deductions	\$ 92,430
5.	Total Additions	\$ 234,000
6.	Total Rate Base	\$ 141,570

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Original Cost Rate Base as Shown on Schedule B-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: TRANSMISSION ASSETS

Adjustment to Test Year rate base to remove transmission assets and generation plant functionalized to ancillary services consistent with FERC rules requiring APS to take transmission service and related ancillary services for the APS Standard Offer customers under the APS OATT.

Line No.	Description	Amount
1.	Gross Utility Plant in Service	\$ (1,264,590)
2.	Less: Accumulated Depreciation and Amortization	\$ (499,955)
3.	Net Utility Plant in Service	\$ (764,635)
4.	Less: Total Deductions	\$ (115,992)
5.	Total Additions	\$ -
6.	Total Rate Base	\$ (648,643)

Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2

ARIZONA PUBLIC SERVICE COMPANY
Total Company
(Thousands of Dollars)

EXCLUDE REGULATORY ASSESSMENTS AND FRANCHISE FEES
Adjustment to Test Year operations to exclude regulatory assessments and franchise fees from both operating revenue and operating expense.

PRO FORMA ADJUSTMENT:

Line No.	Description	Amount
1.	REVENUES:	
2.	Operating Revenue	
3.	Regulatory Assessments	
4.	Franchise Fees	
5.	Total Pro Forma Adjustment to Revenues	
6.	EXPENSES:	
7.	Other Operating Expenses	
8.	Operations Excluding Fuel Expenses	
9.	Regulatory Assessments	
10.	Franchise Fees	
11.	Total Pro Forma Adjustment to Expenses	
12.	OPERATING INCOME (before income tax)	
13.	Income Tax at 39.5%	
	OPERATING INCOME AFTER TAX	

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: **ANNUALIZE JULY 1, 2003 ACC RATE LEVELS**
Adjustment to Test Year operations to reflect the annualization of ACC rate levels for the
July 1, 2002 and July 1, 2003 rate decreases.

Line No.	Description	Amount
1.	REVENUES:	
2.	Operating Revenue	
3.	Residential (less Dusk-to-Dawn)	\$ (19,106)
4.	Small General Service (less Dusk-to-Dawn)	(7,160)
5.	Medium General Service	(7,933)
6.	Large General Service	(1,902)
7.	Extra Large General Service	(462)
8.	All Other	(442)
9.	Total Pro Forma Adjustment to Revenues	\$ (37,005)
10.	OPERATING INCOME (before income tax)	\$ (37,005)
11.	Income Tax at 39.5%	(14,617)
12.	OPERATING INCOME AFTER TAX	\$ (22,388)

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: **NORMALIZE WEATHER CONDITIONS**
Adjustment to Test Year operations to reflect normal weather conditions for the ten years ended December 31, 2002.

Line No.	Description	Amount
1.	REVENUES:	
2.	Operating Revenue	\$ (5,204)
3.	Adjustment to sales (MWh) for the difference between normalized weather sales and actual sales	(45,880)
4.	EXPENSES:	
5.	Fuel and Purchased Power Expenses	(45,880)
6.	Adjustment to Sales (MWh)	1,8033
7.	Test Year Fuel and Purchased Power Costs (¢/kWh)	x _____
8.	Pro Forma Adjustment to Fuel and Purchased Power Expenses	(827)
9.	Operating Revenues Less Fuel and Purchased Power Expenses	\$ (4,377)
10.	Other Operating Expenses	
11.	Adjustment to Sales (MWh)	(45,880)
12.	Test Year Average OATT Expense (¢/kWh)	x _____
13.	Pro Forma Adjustment to OATT Expense	(218)
14.	OPERATING INCOME (before income tax)	\$ (4,159)
15.	Income Tax at 39.5%	(1,643)
16.	OPERATING INCOME AFTER TAX	\$ (2,516)

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: ANNUALIZE CUSTOMER LEVELS TO YEAR-END 2002

Adjustment to Test Year operations to reflect the annualization of customer levels
at December 31, 2002.

Line No.	Description	Amount
1.	REVENUES:	
2.	Operating Revenue	\$ 20,971
3.	Adjustment to sales (MWh) for the difference between customer annualized sales and actual sales	265,009
4.	EXPENSES:	
5.	Fuel and Purchased Power Expenses:	
6.	Adjustment to Sales (MWh)	265,009
7.	Test Year Fuel and Purchased Power Costs (¢/kWh)	x 1,8033
8.	Pro Forma Adjustment to Fuel and Purchased Power Expenses	4,779
9.	Operating Revenues Less Fuel and Purchased Power Expenses	\$ 16,192
10.	Other Operating Expenses	
11.	Adjustment to Sales (MWh)	265,009
12.	Test Year Average OATT Expense (¢/kWh)	x 0.4760
13.	Pro Forma Adjustment to OATT Expense	1,261
14.	Pro Forma Adjustment to Customer Accounts Expense	361
15.	OPERATING INCOME (before income tax)	\$ 14,570
16.	Income Tax at 39.5%	5,755
17.	OPERATING INCOME AFTER TAX	\$ 8,815

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: **SCHEDULE 1 CHANGES**
Adjustment to Test Year operations to reflect proposed revenue-related changes to Schedule 1.

Line No.	Description	Amount
1.	REVENUES:	
2.	Operating Revenue	\$ 79
3.	EXPENSES:	
4.	Other Operating Expenses	
5.	Net Benefit - Online Bill Presentation	(3)
6.	OPERATING INCOME (before income tax)	\$ 82
7.	Income Tax at 39.5%	32
8.	OPERATING INCOME AFTER TAX	\$ 50

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: **BASE RATE COMPONENT FOR EPS**
Adjustment to Test Year operations related to the base rate component of the Company's System Benefits Charge which is used to fund the Environmental Portfolio Standard. Revenue is adjusted to reverse Test Year entries to contributions in aid of construction and to include the expenses allowed by the Commission.

Line No.	Description	Amount
1.	REVENUES:	
2.	Operating Revenue	\$ 5,263
3.	EXPENSES:	
4.	Other Operating Expense	
5.	Renewables	6,000
6.	OPERATING INCOME (before income tax)	\$ (737)
7.	Income Tax at 39.5%	(291)
8.	OPERATING INCOME AFTER TAX	<u>\$ (446)</u>

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: BASE FUEL AND PURCHASED POWER
Adjustment to Test Year operations to include 2003 base fuel and purchased power ϕ /kWh costs at adjusted 2002 consumption.

Line No.	Description	Amount
1.	EXPENSES:	
2.	Fuel and Purchased Power Expenses	
3.	Normalized 2003 Fuel and Purchased Power Costs (ϕ /kWh)	2.3170
4.	Test Year Fuel and Purchased Power Costs (ϕ /kWh)	<u>1.8033</u>
5.	Adjustment to Fuel and Purchased Power Costs (ϕ /kWh)	0.5137
6.	Test Year Sales (MWh)	23,254,517
7.	Pro Forma Adjustments to Test Year Billed Retail Sales (MWh)	
8.	To Adjust to Normal Weather	(45,880)
9.	To Annualized to December 31, 2002 Customer Level	<u>265,009</u>
10.	Adjusted 2002 Sales (MWh)	23,473,646
11.	Pro Forma Adjustment to Fuel and Purchased Power Expenses (Line 5 X Line 10)	\$ <u>120,584</u>
12.	OPERATING INCOME (before income tax)	\$ (120,584)
13.	Income Tax at 39.5%	<u>(47,631)</u>
14.	OPERATING INCOME AFTER TAX	<u><u>\$ (72,953)</u></u>

Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: **NORMALIZE OFF-SYSTEM SALES**
Adjustment to Test Year operations to include off-system revenues consistent with the
Base Fuel and Purchased Power pro forma adjustment.

Line No.	Description	Amount
REVENUES:		
1.	Normalized Off-System Revenue - 2003	\$ 63,079
2.	Test Year Off-System Revenue - 2002	\$ 191,279
3.		
4.	Pro Forma Adjustment to Revenues	\$ (128,200)
EXPENSES:		
5.	Fuel and Purchased Power Expenses	
6.	Normalized Off-System Fuel and Purchased Power Expenses - 2003	\$ 48,330
7.	Test Year Off-System Fuel and Purchased Power Expenses - 2002	\$ 200,198
8.		
9.	Total Pro Forma Adjustment to Fuel and Purchased Power Expenses	(151,868)
10.	OPERATING INCOME (before income tax)	\$ 23,668
11.	Income Tax at 39.5%	9,349
12.	OPERATING INCOME AFTER TAX	\$ 14,319

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: **PWEC UNITS**
Adjustment to Test Year operations to include the Pinnacle West Energy Units including West
Phoenix Combined Cycle No. 4, West Phoenix Combined Cycle No. 5, Redhawk Combined
Cycle No. 1, Redhawk Combined Cycle No. 2 and Saguaro Combustion Turbine No. 3.

Line No.	Description	Amount
1.	REVENUES:	
2.	Operating Revenue	\$ 56,779
3.	Fuel and Purchased Power Expenses	(34,970)
4.	Operating Revenues Less Fuel and Purchased Power Expenses	\$ 91,749
5.	EXPENSES:	
6.	Other Operating Expenses	14,110
7.	Operations Excluding Fuel Expenses	18,549
8.	Maintenance	
9.	Sub-total O&M Expenses	\$ 32,659
10.	Depreciation and Amortization	41,541
11.	Administrative and General	8,797
12.	Other Taxes	11,256
13.	Total Other Operating Expenses	\$ 94,253
14.	OPERATING INCOME (before income tax)	\$ (2,504)
15.	Interest Expense	36,179
16.	Taxable Income	\$ (38,683)
17.	Income Tax at 39.5%	(15,280)
18.	OPERATING INCOME AFTER TAX [Line 14 - Line 17]	\$ 12,776

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: **ANNUALIZE PAYROLL**
Adjustment to Test Year operations to reflect the annualization of payroll and payroll taxes to employee levels at December 31, 2002 and salary levels at March 2003.

Line No.	Description	Amount
1.	EXPENSES:	
2.	Fuel Expenses	\$ 7
3.	Other Operating Expenses	851
4.	Operations Excluding Fuel Expenses	173
5.	Maintenance	
6.	Total Pro Forma Adjustment to Expenses	\$ 1,031
7.	OPERATING INCOME (before income tax)	\$ (1,031)
8.	Income Tax at 39.5%	(406)
9.	OPERATING INCOME AFTER TAX	<u><u>\$ (625)</u></u>

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: **EMPLOYEE SEVERANCE**
Adjustment to Test Year operations to reflect a three-year levelization of expenses incurred during the Test Year related to a voluntary severance and early retirement program offered by the Company.

Line No.	Description	Amount
1.	EXPENSES:	
2.	Other Operating Expenses	\$ (23,155)
3.	Operations Excluding Fuel Expenses	\$ (23,155)
4.	Total Pro Forma Adjustment to Expenses	\$ 23,155
5.	OPERATING INCOME (before income tax)	9,146
6.	Income Tax at 39.5%	\$ 14,009
7.	OPERATING INCOME AFTER TAX	

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: EMPLOYEE BENEFITS ADJUSTMENT
Adjustment to Test Year operations to reflect increased employee benefits expenses.

Line No.	Description	Amount
1.	EXPENSES:	
2.	Fuel and Purchased Power Expenses	
3.	Fuel Expenses	\$ 253
4.	Other Operating Expenses	
5.	Operations Excluding Fuel Expenses	18,623
6.	Maintenance	5,942
7.	Total Pro Forma Adjustment to Expenses	<u>\$ 24,818</u>
8.	OPERATING INCOME (before income tax)	\$ (24,818)
9.	Income Tax at 39.5%	<u>(9,803)</u>
10.	OPERATING INCOME AFTER TAX	\$ (15,015)

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: **ON-GOING DIRECT ACCESS EXPENSE**
Adjustment to Test Year operations to include on-going costs of compliance with the Electric Competition Rules. Such costs were previously deferred and therefore were not included in Test Year operating expenses.

Line No.	Description	Amount
1.	EXPENSES:	
2.	Other Operating Expenses	\$ 1,477
3.	Operations Excluding Fuel Expenses	\$ 1,477
4.	Total Pro Forma Adjustment to Expenses	\$ (1,477)
5.	OPERATING INCOME (before income tax)	
6.	Income Tax at 39.5%	(583)
7.	OPERATING INCOME AFTER TAX	\$ (894)

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: **ON-GOING INDEPENDENT SPENT FUEL STORAGE INSTALLATION ("ISFSI") EXPENSE**
Adjustment to Test Year operations to reflect the on-going costs of ISFSI. Such System Benefits related costs were previously deferred and therefore were not included in Test Year operating expenses.

Line No.	Description	Amount
1.	EXPENSES:	
2.	Fuel Expenses	\$ 2,129
3.	For Current Operations	752
4.	For Post-Shutdown (Placed in Decommissioning Fund)	
5.	Total ISFSI Fuel Expenses	\$ 2,881
6.	OPERATING INCOME (before income tax)	\$ (2,881)
7.	Income Tax at 39.5%	(1,138)
8.	OPERATING INCOME AFTER TAX	<u>\$ (1,743)</u>

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: **TRANSMISSION EXPENSES**
Adjustment to Test Year operations to remove transmission and ancillary services-related expenses from base rates and include OATT costs as an expense consistent with FERC rules requiring APS to take transmission and related ancillary services for the APS Standard Offer customers under the APS OATT.

Line No.	Description	Amount
1.	REVENUES:	
2.	Operating Revenue	\$ (2,310)
3.	EXPENSES:	
4.	Other Operating Expenses	112,362
5.	Operations Excluding Fuel Expense	(610)
6.	Maintenance	(29,163)
7.	Depreciation and Amortization	(5,814)
8.	Administrative and General	(19,236)
9.	Other Taxes	\$ 57,539
10.	Total Pro Forma Adjustment to Expenses	\$ (59,849)
11.	OPERATING INCOME (before income tax)	
12.	Interest Expense	(18,756)
13.	Taxable Income	\$ (41,093)
14.	Income Tax at 39.5%	(16,232)
15.	OPERATING INCOME AFTER TAX [Line 11 - Line 14]	\$ (43,617)

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: **INTEREST ON CUSTOMER DEPOSITS**
Adjustment to Test Year operations to reflect the operating income impact of interest on customer deposits.

Line No.	Description	Amount
1.	EXPENSES:	
2.	Other Operating Expenses	\$ 875
3.	Operations Excluding Fuel Expenses	\$ 875
4.	Total Pro Forma Adjustment to Expenses	\$ (875)
5.	OPERATING INCOME (before income tax)	
6.	Income Tax at 39.5%	(345)
7.	OPERATING INCOME AFTER TAX	<u>\$ (530)</u>

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: **NORMALIZE NON-NUCLEAR MAINTENANCE EXPENSE**
Adjustment to Test Year operations to reflect the normalization of fossil production maintenance expense and to include the O&M costs of generators acquired for compliance with the Environmental Portfolio Standard.

Line No.	Description	Amount
1.	EXPENSES:	
2.	Other Operating Expenses	\$ 868
3.	Environmental Portfolio Standard	(6,882)
4.	Fossil Generation Maintenance Normalization	(6,014)
5.	Total Pro Forma Adjustment to Expenses	\$ 6,014
6.	OPERATING INCOME (before income tax)	2,376
7.	Income Tax at 39.5%	
8.	OPERATING INCOME AFTER TAX	\$ 3,638

ARIZONA PUBLIC SERVICE COMPANY

Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2

Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT:

NORMALIZE NUCLEAR MAINTENANCE EXPENSE

Adjustment to Test Year operations to reflect the normalization of nuclear production maintenance expense.

Line No.	Description	Amount
1.	EXPENSES:	
2.	Other Operating Expenses	\$ (945)
3.	Maintenance	\$ (945)
4.	Total Pro Forma Adjustment to Expenses	\$ 945
5.	OPERATING INCOME (before income tax)	373
6.	Income Tax at 39.5%	\$ 572
7.	OPERATING INCOME AFTER TAX	

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: **ANNUALIZE DEPRECIATION AND AMORTIZATION**
Adjustment to Test Year operations to reflect the requested changes to depreciation rates.

Line No.	Description	Amount
1.	EXPENSES:	
2.	Other Operating Expenses	\$ 3,027
3.	Depreciation and Amortization	\$ 3,027
4.	Total Pro Forma Adjustment to Expenses	\$ (3,027)
5.	OPERATING INCOME (before income tax)	(1,196)
6.	Income Tax at 39.5%	\$ (1,831)
7.	OPERATING INCOME AFTER TAX	

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT:

REGULATORY ASSETS

Adjustment to Test Year operations to remove the amortization of regulatory assets which will be fully amortized by June 30, 2004 and to include amortization of continuing regulatory assets.

Line No.	Description	Amount
1.	EXPENSES:	
2.	Other Operating Expenses	\$ (111,754)
3.	Depreciation and Amortization	\$ (111,754)
4.	Total Pro Forma Adjustment to Expenses	\$ 111,754
5.	OPERATING INCOME (before income tax)	
6.	Interest Expense	(1,819)
7.	Taxable Income	\$ 113,573
8.	Income Tax at 39.5%	44,861
9.	OPERATING INCOME AFTER TAX [Line 5 - Line 8]	\$ 66,893

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: **ISFSI ASSET**
Adjustment to Test Year operations to reflect the amortization of the System Benefits related
ISFSI regulatory asset.

Line No.	Description	Amount
1.	EXPENSES:	
2.	Other Operating Expenses	\$ 7,459
3.	Depreciation and Amortization	792
4.	For Current Operations	
5.	For Post-Shutdown (Placed in Decommissioning Fund)	
6.	Total Pro Forma Adjustment to Expenses	\$ 8,251
7.	OPERATING INCOME (before income tax)	\$ (8,251)
8.	Interest Expense	76
9.	Taxable Income	\$ (8,327)
10.	Income Tax at 39.5%	(3,288)
11.	OPERATING INCOME AFTER TAX [Line 7 - Line 10]	\$ (4,963)

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: **REVERSAL OF SETTLEMENT WRITE-OFF**
Adjustment to Test Year operations to include a 15-year amortization restoring the \$234 million disallowance taken by the Company in consideration of certain benefits previously agreed to under the 1999 Settlement.

Line No.	Description	Amount
1.	EXPENSES:	
2.	Other Operating Expenses	\$ 15,600
3.	Depreciation and Amortization	\$ 15,600
4.	Total Pro Forma Adjustment to Expenses	\$ (15,600)
5.	OPERATING INCOME (before income tax)	
6.	Interest Expense	4,094
7.	Taxable Income	\$ (19,694)
8.	Income Tax at 39.5%	(7,779)
9.	OPERATING INCOME AFTER TAX [Line 5 - Line 8]	\$ (7,821)

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: **NUCLEAR DECOMMISSIONING FUNDS**
Adjustment to Test Year operations to increase contributions to the nuclear decommission trust funds.

Line No.	Description	Amount
1.	EXPENSES:	
2.	Other Operating Expenses	\$ 7,766
3.	Depreciation and Amortization	\$ 7,766
4.	Total Pro Forma Adjustment to Expenses	\$ (7,766)
5.	OPERATING INCOME (before income tax)	<u>(3,068)</u>
6.	Income Tax at 39.5%	<u>\$ (4,698)</u>
7.	OPERATING INCOME AFTER TAX	

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: **ANNUALIZE PROPERTY TAX TO YEAR ENDING DECEMBER 31, 2002**
Adjustment to Test Year operations to reflect property taxes calculated using
December 31, 2002 plant balances.

Line No.	Description	Amount
1.	EXPENSES:	
2.	Other Operating Expenses	\$ 10,199
3.	Other Taxes	\$ 10,199
4.	Total Pro Forma Adjustment to Expenses	\$ (10,199)
5.	OPERATING INCOME (before income tax)	(4,029)
6.	Income Tax at 39.5%	\$ (6,170)
7.	OPERATING INCOME AFTER TAX	

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT:

FINANCING APPLICATION

Adjustment to Test Year operations to reflect 264 basis point differential specified in Commission Decision No. 65796.

Line No.	Description	Amount
1.	EXPENSES:	
2.	Other Operating Expenses	\$ (3,416)
3.	Amortization of Gain	\$ (3,416)
4.	Total Pro Forma Adjustment to Expenses	\$ 3,416
5.	OPERATING INCOME (before income tax)	1,349
6.	Income Tax at 39.5%	\$ 2,067
7.	OPERATING INCOME AFTER TAX	

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: **INCOME TAX/SYNCHRONIZED INTEREST ON TEST YEAR RATE BASE**
Adjustment to Test Year operations to reflect the synchronization of interest expense using the adjusted year-end 2002 capital structure and cost of long-term debt, as well as the use of the statutory income tax rate.

Line No.	Description	Amount
1.	Interest Expense	\$ (12,783)
2.	Taxable Income	\$ 12,783
3.	Income Tax at 39.5%	5,049
4.	OPERATING INCOME AFTER TAX	\$ (5,049)

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule C-2
Total Company
(Thousands of Dollars)

PRO FORMA ADJUSTMENT: MISCELLANEOUS ADJUSTMENTS
Adjustment to Test Year operations to eliminate non-recurring and out-of-period expenses.

Line No.	Description	Amount
1.	REVENUES:	
2.	Operating Revenue	\$ 6,117
3.	EXPENSES:	
4.	Other Operating Expenses	(699)
5.	Operations Excluding Fuel Expenses	(699)
6.	Total Pro Forma Adjustment to Expenses	\$ (1,398)
7.	OPERATING INCOME (before income tax)	\$ 6,816
8.	Income Tax at 39.5%	\$ 2,692
9.	OPERATING INCOME AFTER TAX	<u>\$ 4,124</u>

ARIZONA PUBLIC SERVICE COMPANY
SCHEDULE OF AMOUNTS TO BE DEPOSITED IN THE
DECOMMISSIONING TRUSTS INCLUDED IN COST-OF-SERVICE
PALO VERDE UNIT I
(Thousands of Dollars)
(APS Share)

Line	Year	Post Shutdown On-Going ISFSI Annual Contribution Required	Post Shutdown ISFSI Regulatory Asset Amortization Annual Contribution Required	Decommissioning Annual Contribution Required	Total Annual Contribution Required	ACC Jurisdictional Amount /1/
1	2004	\$ 125	\$ 107	\$ 4,077	\$ 4,309	\$ 4,246
2	2005	251	214	5,122	5,587	5,505
3	2006	251	214	5,122	5,587	5,505
4	2007	251	214	5,122	5,587	5,505
5	2008	251	214	5,122	5,587	5,505
6	2009	605	214	5,122	5,941	5,854
7	2010	960	214	5,122	6,296	6,204
8	2011	960	214	5,122	6,296	6,204
9	2012	960	214	5,122	6,296	6,204
10	2013	960	214	5,122	6,296	6,204
11	2014	960	214	5,122	6,296	6,204
12	2015	960	214	5,122	6,296	6,204
13	2016	960	214	5,122	6,296	6,204
14	2017	960	214	5,122	6,296	6,204
15	2018	960	214	5,122	6,296	6,204
16	2019	960	214	5,122	6,296	6,204
17	2020	960	214	5,122	6,296	6,204
18	2021	960	214	5,122	6,296	6,204
19	2022	960	214	5,122	6,296	6,204
20	2023	960	214	5,122	6,296	6,204
21	2024	960	214	5,122	6,296	6,204
22	2025	-	-	-	-	-
23	2026	-	-	-	-	-
		\$ 16,134	\$ 4,387	\$ 106,517	\$ 127,038	\$ 125,183

/1/ ACC Jurisdictional share is approximately 98.54%.

**ARIZONA PUBLIC SERVICE COMPANY
SCHEDULE OF AMOUNTS TO BE DEPOSITED IN THE
DECOMMISSIONING TRUSTS INCLUDED IN COST-OF-SERVICE
PALO VERDE UNIT II
(Thousands of Dollars)
(APS Share)**

Line	Year	Post Shutdown On-Going ISFSI Annual Contribution Required	Post Shutdown ISFSI Regulatory Asset Amortization Annual Contribution Required	Decommissioning Annual Contribution Required	Total Annual Contribution Required	ACC Jurisdictional Amount /1/
1	2004	\$ 126	\$ 194	\$ 6,153	\$ 6,473	\$ 6,378
2	2005	250	388	8,072	8,710	8,583
3	2006	250	388	8,072	8,710	8,583
4	2007	250	388	8,072	8,710	8,583
5	2008	250	388	8,072	8,710	8,583
6	2009	606	388	8,072	9,066	8,934
7	2010	2,561	388	8,072	11,021	10,860
8	2011	2,561	388	8,072	11,021	10,860
9	2012	2,561	388	8,072	11,021	10,860
10	2013	2,561	388	8,072	11,021	10,860
11	2014	2,561	388	8,072	11,021	10,860
12	2015	2,561	388	8,072	11,021	10,860
13	2016	-	-	-	-	-
14	2017	-	-	-	-	-
15	2018	-	-	-	-	-
16	2019	-	-	-	-	-
17	2020	-	-	-	-	-
18	2021	-	-	-	-	-
19	2022	-	-	-	-	-
20	2023	-	-	-	-	-
21	2024	-	-	-	-	-
22	2025	-	-	-	-	-
23	2026	-	-	-	-	-
		\$ 17,098	\$ 4,462	\$ 94,945	\$ 116,505	\$ 114,804

/1/ ACC Jurisdictional share is approximately 98.54%.

**ARIZONA PUBLIC SERVICE COMPANY
SCHEDULE OF AMOUNTS TO BE DEPOSITED IN THE
DECOMMISSIONING TRUSTS INCLUDED IN COST-OF-SERVICE
PALO VERDE UNIT III
(Thousands of Dollars)
(APS Share)**

Line	Year	Post Shutdown On-Going ISFSI Annual Contribution Required	Post Shutdown ISFSI Regulatory Asset Amortization Annual Contribution Required	Decommissioning Annual Contribution Required	Total Annual Contribution Required	ACC Jurisdictional Amount /1/
1	2004	\$ 125	\$ 95	\$ 5,098	\$ 5,318	\$ 5,240
2	2005	251	190	6,017	6,458	6,364
3	2006	251	190	6,017	6,458	6,364
4	2007	251	190	6,017	6,458	6,364
5	2008	251	190	6,017	6,458	6,364
6	2009	605	190	6,017	6,812	6,713
7	2010	960	190	6,017	7,167	7,062
8	2011	960	190	6,017	7,167	7,062
9	2012	960	190	6,017	7,167	7,062
10	2013	960	190	6,017	7,167	7,062
11	2014	960	190	6,017	7,167	7,062
12	2015	960	190	6,017	7,167	7,062
13	2016	960	190	6,017	7,167	7,062
14	2017	960	190	6,017	7,167	7,062
15	2018	960	190	6,017	7,167	7,062
16	2019	960	190	6,017	7,167	7,062
17	2020	960	190	6,017	7,167	7,062
18	2021	960	190	6,017	7,167	7,062
19	2022	960	190	6,017	7,167	7,062
20	2023	960	190	6,017	7,167	7,062
21	2024	960	190	6,017	7,167	7,062
22	2025	960	190	6,017	7,167	7,062
23	2026	1,004	238	6,017	7,259	7,153
		\$ 18,098	\$ 4,323	\$ 137,472	\$ 159,893	\$ 157,559

/1/ ACC Jurisdictional share is approximately 98.54%.

Testimony
of
Chris N. Foggatt

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DIRECT TESTIMONY OF CHRIS N. FROGGATT

On Behalf of Arizona Public Service Company

Docket No. E-01345A-03-____

June 27, 2003

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1
2 **DIRECT TESTIMONY OF CHRIS N. FROGGATT**
3 **ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY**
4 **(Docket No. E-01345A-03-)**

5 I. **INTRODUCTION**

6 Q. **PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

7 A. My name is Chris N. Froggatt. My business address is 400 North Fifth Street,
8 Phoenix, Arizona, 85072-3999.
9

10 Q. **WHAT IS YOUR POSITION WITH ARIZONA PUBLIC SERVICE**
11 **COMPANY?**

12 A. I am Vice President and Controller for Arizona Public Service Company ("APS"
13 or "Company"). My educational background and professional qualifications, as
14 well as my professional experience, are set forth in Appendix A, which is
15 attached to this testimony.

16 Q. **WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
17 **PROCEEDING?**

18 A. My testimony will primarily focus on the historical accounting data, including
19 unadjusted test-year data, in the Company's filing. I will also testify regarding
20 the capital structure used to calculate the Company's cost of capital.
21

22 II. **SUMMARY OF TESTIMONY**

23 Q. **PLEASE PROVIDE A SUMMARY OF YOUR TESTIMONY.**

24 A. My testimony addresses historical accounting data that is required by the various
25 Standard Filing Requirements ("SFR") Schedules of the Arizona Corporation
26

1 Commission ("Commission") supporting the Company's rate case filing. Thus, I
2 discuss information from the test year and prior years relating to the Summary
3 Schedules, SFR Schedules A-2, A-3 and A-4; certain components of the
4 Company's historical original cost rate base in SFR Schedule B-1; the working
5 capital allowance component of rate base in SFR Schedule B-5; and income
6 statements relating to the test year and prior years in SFR Schedule C-1. I will
7 also discuss the factor used to gross up operating income to account for taxes in
8 SFR Schedule C-3. I also discuss the capital structure of the Company and,
9 using the information on cost of equity provided by Dr. Olson and the
10 Company's cost of debt, provide APS' overall cost of capital in SFR Schedules
11 D-1, D-2 and D-3. Finally, I sponsor the various schedules relating to the
12 Company's financial statements and certain statistical data required by the
13 schedules, which are includes in SFR Schedules E-1 through E-9 (excepting
14 SFR Schedule E-6 which is not applicable to APS).

15
16 **III. HISTORICAL AND TEST YEAR ACCOUNTING DATA**

17
18 **Q. COULD YOU PLEASE DESCRIBE THE ACCOUNTING**
19 **INFORMATION CONTAINED WITHIN THE SFR SCHEDULES THAT**
20 **YOU ARE SPONSORING?**

21 **A.** As the Controller of APS, I am responsible for accounting and financial
22 reporting by the Company. Thus, my testimony covers historical accounting
23 data, including the actual year-end figures as of December 31, 2002 ("Test
24 Year"). The majority of this information is either directly or indirectly contained
25 in both the APS and consolidated Pinnacle West Capital Corporation ("PWCC")
26 audited financial statements included in filings made with the Securities and
Exchange Commission ("SEC") for the relevant years.

1 Additionally, all of the accounting information provided in my testimony
2 complies with Generally Accepted Accounting Principles ("GAAP"). These are
3 the principles that accounting professionals use to prepare financial statements.
4 One major goal of GAAP is to make financial statements comparable from year
5 to year, from industry to industry, and from jurisdiction to jurisdiction. APS'
6 accounting practices also comply with accepted utility accounting standards,
7 such as the Federal Energy Regulatory Commission ("FERC") Uniform System
8 of Accounts, which has also been adopted by the Commission.

9
10 In large part, my testimony supports the testimony of other APS witnesses. The
11 direct testimony of APS witness Donald G. Robinson addresses the adjusted test
12 year data that results when certain pro forma adjustments are applied to actual
13 test year data. Mr. Robinson's testimony also addresses projections to actual test
14 year data. The direct testimony of APS witness Laura L. Rockenberger
15 addresses, among other things, Reconstructed Cost New Less Depreciation
16 ("RCND"), working capital requirements, and depreciation. APS witness Alan
17 Proper's direct testimony focuses on the jurisdictional allocation of APS
18 revenues, costs, and rate base items. And Dr. Charles Olson's testimony
19 addresses the Company's cost of equity.

20 *A. Summary Schedules*

21
22 **Q. DID YOU PREPARE SFR SCHEDULES A-2, A-3 AND A-4?**

23 **A.** Yes, in part. The information related to actual 2000 and 2001 results, and the
24 unadjusted or actual test year information in each of these schedules was
25 prepared by me and my staff.
26

1 Q. PLEASE DESCRIBE THE HISTORICAL INFORMATION IN SFR
SCHEDULE A-2.

2 A. SFR Schedule A-2 provides the "Summary Results of Operations" for the Test
3 Year and the prior two years. It also includes projected information for two
4 years after the test year. I am sponsoring the data contained in the first three
5 columns of SFR Schedule A-2, which is historical data for the prior years and
6 the Test Year. The projected information is being sponsored by Mr. Robinson.
7

8 Q. PLEASE DISCUSS SFR SCHEDULE A-3.

9 A. SFR Schedule A-3 is the "Summary of Capital Structure" for APS, also broken
10 down into the test year, two prior years, and a projected period. As with SFR
11 Schedule A-2, I am sponsoring the historical prior year and Test Year data. This
12 Schedule shows that the Company's actual capital structure has remained
13 relatively stable over the last three years, with debt-to-total capitalization ratios
14 ranging between 49.8% (year-end 2002) and 51.1% (year-end 2001).
15

16 Q. ARE YOU SPONSORING ANY INFORMATION ON SFR SCHEDULE
A-4?

17 A. Yes. SFR Schedule A-4 contains information on construction expenditures and
18 gross utility plant in service. I am sponsoring the information on lines 1, 2 and 3
19 of this schedule, which is the actual construction expenditures and gross utility
20 plant in service for 2000, 2001 and the Test Year, respectively.
21

22 Q. PLEASE DISCUSS THE HISTORICAL INFORMATION ON SFR
SCHEDULE A-5.

23 A. SFR Schedule A-5 shows summary changes in financial position for the two
24 prior years, Test Year and projected year periods. This schedule illustrates APS
25 change in financial position over these various periods, by showing funds
26 obtained from operations and financing and netting these against funds spent on

1 construction or other expenditures. As with the other historical accounting
2 information, I am sponsoring the data in the first three columns of SFR Schedule
3 A-5, relating to sources and application of funds.

4
5 *B. Rate Base Schedules*

6 **Q. ARE YOU SPONSORING HISTORICAL ACCOUNTING DATA**
7 **RELATING TO THE RATE BASE SCHEDULES?**

8 A. Yes. I am sponsoring the historical data in SFR Schedule B-1 and SFR Schedule
9 B-5.

10 **Q. PLEASE DISCUSS THE HISTORICAL DATA IN SFR SCHEDULE B-1.**

11 A. I am sponsoring the information provided in the first column of SFR Schedule
12 B-1, which are the various components of the total company original cost rate
13 base. As of the end of 2002 and prior to any pro forma adjustments, the total
14 Company unadjusted original cost rate base was approximately \$3.9 billion.
15 This total figure was comprised of approximately \$4.9 billion of net plant in
16 service, \$1.6 billion of deductions such as deferred taxes or customer advances,
17 and \$600 million of additions such as regulatory assets, allowance for working
18 capital, and nuclear decommissioning funds.

19
20 **Q. WHICH PORTIONS OF THE HISTORICAL INFORMATION IN SFR**
21 **SCHEDULE B-5 ARE YOU SPONSORING?**

22 A. This SFR Schedule outlines the allowance for working capital to be applied to
23 the Company's rate base. Working capital represents the amount of cash,
24 materials and supplies, fuel, and prepayments needed to meet current expenses
25 and contingencies that might ordinarily develop. Working capital is an
26 investment just like other capital requirements such as power plants and

1 transmission and distribution infrastructure, and it is thus part of APS' rate base.
2 I am sponsoring all of the data in SFR Schedule B-5, with the exception of the
3 Cash Working Capital calculation on line 1 of page 1. The Cash Working
4 Capital amount resulted from the Lead-Lag Study performed under the direction
5 of Ms. Rockenberger, which is described in her testimony. The resulting
6 working capital allowance is approximately \$176 million, which includes \$54
7 million of Cash Working Capital. The total working capital allowance is
8 reflected in the total Test Year rate base at line 15 of SFR Schedule B-1.
9

10 *C. Test Year Income Statements*

11 **Q. WERE YOU RESPONSIBLE FOR PREPARING THE ACTUAL TEST
12 YEAR INFORMATION IN SFR SCHEDULE C-1?**

13 **A.** Yes.

14 **Q. PLEASE DISCUSS THE INFORMATION THAT YOU ARE
15 SPONSORING IN SFR SCHEDULE C-1.**

16 **A.** SFR Schedule C-1 is the summary of the Company's adjusted test year income
17 statement. I am sponsoring the historical Test Year data in the first column of
18 SFR Schedule C-1. This information is the baseline from which pro forma
19 adjustments are made and shows operating income and net income for the test
20 year. As shown on the schedule, APS' operating income and net income during
21 the Test Year period were \$329 million and \$199 million, respectively, on sales
22 of nearly \$2.1 billion.

23 **Q. ARE YOU SPONSORING ANY OTHER RELATED SFR SCHEDULES?**

24 **A.** Yes, I am sponsoring SFR Schedule C-3, which is the computation of the gross
25 revenue conversion factor.
26

1 **Q. PLEASE DESCRIBE SFR SCHEDULE C-3.**

2 A. SFR Schedule C-3 calculates the factor applied to "gross up" income to account
3 for income taxes and, when applicable, other expenses such as franchise fees so
4 that taxes that must be paid by APS are reflected in the revenue requirement
5 that APS is requesting. Because there are no other expenses to include in APS'
6 case, the Gross Revenue Conversion factor of 1.6529 shown on Line 5 is simply
7 an algebraic transformation of APS' total, or composite state and federal, tax
8 rate of 39.5 percent. This factor is used on Schedule A-1 at Line 7 to arrive at
9 the increase or decrease in Gross Revenue Requirements necessary to account
10 for income taxes.

11
12 *D. Capital Structure and Cost of Capital*

13 **Q. WERE YOU RESPONSIBLE FOR PREPARING SCHEDULES D-1, D-2
AND D-3?**

14 A. Yes.

15
16 **Q. PLEASE DISCUSS THE COST OF CAPITAL INFORMATION THAT
YOU ARE SPONSORING.**

17 A. SFR Schedule D-1 is the summary of the Company's historical and projected
18 cost of capital and I am sponsoring the Test Year data in this schedule. SFR
19 Schedule D-2 presents supporting detail for the long-term debt that is
20 summarized on SFR Schedule D-1. SFR Schedule D-3, which addresses
21 preferred stock, is included in the Company's schedules for completeness but is
22 irrelevant because APS has no outstanding preferred stock at the end of 2002.

1 Q. PLEASE DISCUSS IN MORE DETAIL THE COMPANY'S
2 OUTSTANDING LONG-TERM DEBT AS OF THE END OF THE TEST
3 YEAR.

4 A. Approximately one-half of APS' outstanding long-term debt consisted of
5 unsecured notes with a weighted average interest rate of around 6.8 percent
6 (\$88.486 million in annualized interest divided by \$1.3 billion). The remainder
7 of the long-term debt consisted of first mortgage bonds, senior notes, and
8 pollution control indebtedness with weighted average interest rates of about 6.1
9 percent, 5.9 percent, and 2.2 percent, respectively. APS also has a small amount
10 of interest related to capital lease obligations which is classified as interest
11 expense and thus reflected on the schedule.

12 Q. HAVE YOU MADE ANY ADJUSTMENTS TO THE END OF TEST
13 YEAR DEBT?

14 A. Yes. During the first two quarters of 2003, there were some adjustments to the
15 amount of long-term debt outstanding due to call provisions in first mortgage
16 bonds relating to maintenance and repair redemptions ("M&R calls"). Also,
17 there were adjustments to interest rates due to rate resets on outstanding
18 pollution control bonds. These adjustments decreased the Company's embedded
19 cost of debt and overall leverage from the end of Test Year actual figures. A
20 summary of the impacts to actual end of Test Year data from the adjustments
21 for the M&R calls and pollution control bond rate resets is provided in
22 Attachment CNF-1 to this testimony.

23 Q. WHAT WAS APS' CAPITAL STRUCTURE AT THE END OF THE
24 TEST YEAR?

25 A. After adjusting for the M&R calls and pollution control bond rate resets, APS'
26 total long-term debt and common equity was approximately \$4.3 billion. This
was comprised of just over \$2.1 billion in long-term debt (including current

1 maturities) and just under \$2.2 billion in common equity. Thus, APS' capital
2 structure at the end of the test year was approximately 50 percent debt and 50
3 percent equity.

4
5 **Q. WHAT COST OF CAPITAL HAVE YOU CALCULATED TO INCLUDE**
6 **IN SFR SCHEDULE D-1?**

7 A. Given an 11.5 percent cost of equity discussed in Dr. Olson's testimony, the
8 embedded cost of debt of 5.81 percent, and the actual Test Year debt-equity
9 ratio discussed above, APS' weighted average cost of capital is 8.67%, which is
10 reflected on Line 6 of SFR Schedule D-1.

11 **Q. HOW DOES RATEBASING THE PWEC DEDICATED UNITS AFFECT**
12 **APS' DEBT AND EQUITY RATIOS?**

13 A. In this proceeding APS is proposing that Pinnacle West Energy's ("PWEC")
14 Redhawk Units 1 and 2, West Phoenix Combined Cycle Units 4 and 5 and the
15 Saguaro Combustion Turbine (collectively the "PWEC Units") be transferred to
16 APS and included in rate base. If the PWEC-related debt is incorporated into
17 APS' existing capital structure, leverage is increased to approximately 55% debt
18 and 45% common equity. Both APS witnesses Steven M. Wheeler and Ajit
19 Bhatti address the proposed ratebasing of the PWEC Dedicated Units in more
20 detail in their testimony, while Mr. Robinson discussed the impact of this
21 increased leverage on the Company's overall cost of capital.
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1 *E. Financial Statements and Statistical Schedules*

2 **Q. ARE YOU SPONSORING SFR SCHEDULES E-1 THROUGH E-9?**

3 A. Yes. These schedules relate primarily to historical financial and accounting
4 information, as well as the notes to the financial statements. SFR Schedule E-6
5 is required only for combination utilities and therefore is not included.

6 **Q. PLEASE DISCUSS SFR SCHEDULES E-1, E-2 AND E-3.**

7 A. These three schedules contain information found on the balance sheet, the
8 income statement and the cash flow statement for the Test Year period and the
9 two prior years. SFR Schedule E-1 provides comparative balance sheets for
10 these periods, while SFR Schedules E-2 and E-3 provide comparative statements
11 of income and comparative statements of cash flows, respectively. All of these
12 financial statements were included in APS' Form 10-K filings with the SEC for
13 the relevant years, as restated in 2002.

14 **Q. PLEASE DISCUSS SFR SCHEDULE E-4.**

15 A. SFR Schedule E-4 shows changes in stockholders' equity for the Test Year and
16 two prior years. This schedule shows that stockholders' equity changed by net
17 income, dividends paid and other comprehensive loss. APS' other
18 comprehensive loss includes minimum pension liability adjustments and
19 unrealized losses on derivative instruments used to hedge gas and power costs.
20 GAAP require these items to be reported in stockholders' equity through other
21 comprehensive income or loss, rather than be reflected in net income.

22 **Q. WHAT IS PROVIDED IN SFR SCHEDULE E-5?**

23 A. SFR Schedule E-5 is the detailed statement of utility plant that makes up the
24 Company's rate base, broken down by account number under the Uniform
25
26

1 Systems of Accounts. The first page of SFR Schedule E-5 is a summary, which
2 includes balances for gross plant in service, accumulated depreciation, nuclear
3 fuel, work in progress and plant held for future use. The remainder of the
4 schedule presents supporting detail by account.

5 **Q. WHAT INFORMATION IS PROVIDED IN SFR SCHEDULE E-7?**

6 **A.** SFR Schedule E-7 provides detailed information concerning APS' sales (in
7 kWh), number of customers and average usage per customer over the last three
8 years, including the test year. This information is contained in or derived from
9 APS' FERC Form 1 filings for the applicable periods and is separated by
10 customer classes to show residential, commercial, industrial, irrigation, public
11 street and highway lighting, other sales to public authorities and sales for resale.
12 Additionally, SFR Schedule E-7 shows average revenue per residential
13 customer, which in 2002 was approximately \$1,140. SFR Schedule E-7 also
14 shows that the direct production expense per kWh sold and direct transmission
15 expense per kWh sold was 2.9 cents and 0.09 cents in 2002, respectively.
16

17 **Q. PLEASE DISCUSS SFR SCHEDULE E-8.**

18 **A.** SFR Schedule E-8 provides a breakdown of the taxes paid by APS during 2002
19 and the two prior years, showing federal, state and local taxes paid. This tax
20 figure is used to derive the gross-up factor used in SFR Schedule C-3.
21

22 **Q. PLEASE DISCUSS SFR SCHEDULE E-9?**

23 **A.** SFR Schedule E-9 sets forth the notes to the financial statements. These notes
24 include, but are not limited to, the Company's accounting policies for
25 depreciation, capitalized interest and income taxes. The notes also provide
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additional detailed information related to the income statement, balance sheet and cash flow statement.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

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Appendix A
Statement of Qualifications
Chris N. Froggatt

Chris N. Froggatt is Vice President and Controller for Arizona Public Service Company. Mr. Froggatt has responsibility for Accounting Services, Tax Services, Financial Services (budgets and forecasts), Insurance and Energy Risk Management, Supply Chain, Transportation and Public Safety. These services are provided as needed across all of the Pinnacle West companies.

Mr. Froggatt graduated from Michigan State University in 1980 with a Bachelor's Degree in Accounting. He is a Certified Public Accountant and a member of both the American Institute of Certified Public Accountants and the Arizona Society of Certified Public Accountants.

Mr. Froggatt spent six and one-half years in public accounting upon graduation from college. He joined APS in December 1986 as Manager of Financial Reporting and became Director of Accounting Services in 1992. In July of 1997, Mr. Froggatt was named Controller for APS and had effectively the same responsibilities for Pinnacle West. He was promoted to Vice-President and Controller of Pinnacle West in July 1999.

**ADJUSTMENTS FOR MAINTENANCE AND REPLACEMENT CALLS
AND POLLUTION CONTROL BOND RATE RESETS**
(dollars in thousands)

DESCRIPTION	LONG-TERM DEBT AMOUNT	COST OF LONG-TERM DEBT
12/31/02 UNADJUSTED	\$ 2,227,180	6.02%
Impact of Calls:		
FIRST MORTGAGE BOND - 8%	(33,075)	(0.03)%
FIRST MORTGAGE BOND - 7.25%	(54,150)	(0.04)%
Subtotal	<u>2,139,955</u>	<u>5.95%</u>
Reset PC Bond Interest Rates	-	(0.14)%
12/31/02 ADJUSTED	<u>\$ 2,139,955</u>	<u>5.81%</u>

Testimony
of
Laura L. Rockenberger

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DIRECT TESTIMONY OF LAURA L. ROCKENBERGER

On Behalf of Arizona Public Service Company

Docket No. E-01345A-03-___

June 27, 2003

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1 **DIRECT TESTIMONY OF LAURA L. ROCKENBERGER**
2 **ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY**
3 **(Docket No. E-01345A-03-____)**

4 I. **INTRODUCTION**

5 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

6 A. My name is Laura L. Rockenberger. My business address is 400 North Fifth
7 Street, Phoenix, Arizona, 85072-3999.
8

9 **Q. WHAT IS YOUR POSITION WITH ARIZONA PUBLIC SERVICE**
10 **COMPANY?**

11 A. I am the Group Leader of Accounting Operations for Arizona Public Service
12 Company ("APS" or "Company"). My educational background and professional
13 qualifications, as well as my professional experience, are set forth in Appendix
14 A, which is attached to this testimony.

15 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
16 **PROCEEDING?**

17 A. My testimony addresses four accounting-related topics to support the
18 Company's rate case application. First, I sponsor the Reproduction¹ Cost New
19 ("RCN") study for Schedule B-4 of the Arizona Corporation Commission's
20 ("Commission") Standard Filing Requirements ("SFR") and the various
21 elements of the adjusted Reproduction Cost New Less Depreciation ("RCND")
22 rate base (SFR Schedules B-3 and B-4a). These are summarized in SFR
23 Schedule B-1. Second, my testimony explains the Cash Working Capital
24 component of APS' Allowance for Working Capital (SFR Schedule B-5, Line 1)
25 which was calculated following the lead/lag study method required by the
26

¹ "Reproduction Cost" or "Reconstructed Cost" are used interchangeably.

1 Commission in Decision No. 55931 (April 1, 1988). Third, I explain the process
2 used to arrive at the Company's proposed depreciation and amortization rates.
3 Finally, I will explain the effects of APS' adopting Statement of Financial
4 Accounting Standards No. 143 ("SFAS 143"), which addresses Asset
5 Retirement Obligations ("ARO"), and how APS, as a regulated public utility,
6 must account for ARO for financial reporting purposes.
7

8 **II. SUMMARY OF TESTIMONY**

9 **Q. PLEASE PROVIDE A SUMMARY OF YOUR TESTIMONY.**

10 **A.** To aid the Commission in its determination of the "fair value" of APS'
11 properties devoted to public service, I am presenting the results of the
12 Company's most recent RCN study. This study, which follows the same
13 methodology used in prior studies filed with and accepted by this Commission,
14 establishes the RCN value of gross utility plant to be approximately \$13.6
15 billion as of December 31, 2002, the end of the test year. After adjusting this
16 RCN value of gross utility plant to reflect accumulated depreciation, combining
17 it with the other elements of rate base, including pro forma adjustments, and
18 determining the jurisdictional allocation for retail customers, the total
19 Commission jurisdictional RCND rate base is approximately \$6.7 billion. The
20 precise value is shown in SFR Schedule B-1, line 19.
21

22 My testimony then presents the calculation of the allowance for working capital,
23 which includes a cash working capital component determined using the lead/lag
24 study methodology required by Decision No. 55931. Based on total APS test
25 year balances, the calculation of a reasonable allowance for working capital
26 results in an addition to rate base of \$175.7 million, of which roughly \$54.1

1 million reflects net cash working capital calculated using the lead/lag study. The
2 balance of the rate base increase for working capital requirements is primarily
3 attributable to non-cash operating reserves, as well as inventories of fuel,
4 materials and supplies.

5 The third subject that I address is depreciation and amortization. I will discuss
6 the depreciation study that APS conducted, including the purpose of the study,
7 the consulting firm used, and methodology for determining depreciation rates
8 for the rate case. I will also discuss amortization rates proposed by the
9 Company.

10 Finally, I will address the recent accounting standard on ARO, which is
11 embodied in SFAS 143, which must be followed when determining the
12 appropriate treatment of legal obligations associated with the retirement of long-
13 lived assets. These include such obligations as decommissioning or removal
14 costs for certain generating plants. I will discuss the major differences between
15 APS' current practices and the new practices required under SFAS 143.
16

17
18 **III. REPRODUCTION COST NEW STUDY**

19
20 **Q. WERE SFR SCHEDULES B-3, B-4 AND B-4A PREPARED AT YOUR
DIRECTION AND UNDER YOUR SUPERVISION AND CONTROL?**

21 **A. Yes, they were.**

22
23 **Q. WHAT IS MEANT BY THE TERMS "RCN" AND "RCND" AS USED IN
YOUR TESTIMONY?**

24 **A. A.A.C. R14-2-103(A)(3)(n) ("Rule 103") defines "Reconstructed Cost New"**
25 **Less Depreciation or RCND as:**
26

1 An amount consisting of the depreciated reconstruction cost new
2 of property (exclusive of contributions and/or advances in aid of
3 construction) at the end of the test year, used and useful, plus a
4 proper allowance for working capital and including all applicable
pro forma adjustments. Contributions and advances in aid of
construction, if recorded in the accounts of the public service
corporation, shall be increased to a reconstruction new basis.

5 Thus, RCN refers to the estimated costs that would be incurred if the utility
6 properties of APS that were devoted to public service as of December 31, 2002
7 were to be reproduced or reconstructed as new properties using current cost
8 levels. RCND is a net amount that results after deducting accumulated
9 depreciation and amortization (both of which are also restated in current dollars)
10 from the RCN amount.

11 **Q. WHAT IS SHOWN ON SFR SCHEDULE B-4?**

12 A. SFR Schedule B-4 presents the RCN and RCND amounts of APS' utility
13 properties. These amounts were determined using an RCN Study performed by
14 the Company.

15
16 **Q. WOULD YOU BRIEFLY DESCRIBE THE PROCEDURES YOU
17 FOLLOWED IN CONDUCTING THE RCN STUDY?**

18 A. Consistent with Rule 103, the RCN study that supports SFR Schedule B-4 was
19 conducted by taking depreciable plant at original cost by FERC account,² by
20 vintage year, and adding back Contributions in Aid of Construction ("CIAC") at
21 original cost. Electric and gas utilities are required by the USOA to subtract
22 CIAC from original cost plant-in-service rather than record it as a separate
23 liability account, as is done by water and sewer utilities. This amount was
24 multiplied by the Handy-Whitman index factor, based on vintage year, to arrive
25 at RCN before CIAC adjustment. CIAC was also multiplied by the appropriate

26 ² The Commission has adopted the FERC Uniform System of Accounts ("USOA") in
A.A.C. R14-2-212(G).

1 Handy-Whitman index. The adjusted CIAC was added to the RCN determined
2 before CIAC adjustment to arrive at the final RCN number shown in column (a)
3 of SFR Schedule B-4.

4
5 **Q. WOULD YOU EXPLAIN IN MORE DETAIL THE CONSIDERATION**
6 **THAT YOU GAVE TO CONTRIBUTIONS IN AID OF CONSTRUCTION**
7 **IN DETERMINING RCN?**

8 **A.** Yes. CIAC is generally cash paid to APS by third parties for construction of
9 facilities to be owned by APS. Sometimes, it may also include property donated
10 to the Company to provide service. Line extensions are the most common source
11 of CIAC. As with original cost plant, CIAC is indexed using the Handy-
12 Whitman Index as required by Rule 103 to arrive at Reproduction Cost New. A
13 summary of CIAC is provided in column (b) of Attachment LLR-1.

14 **Q. WHAT IS THE HANDY-WHITMAN INDEX?**

15 **A.** The Handy-Whitman Index is recognized by the utility industry as being
16 essentially equivalent to a Consumers Price Index for electric utility property. It
17 compares the current cost of constructing electric utility property with past
18 construction costs and presents the comparison in the form of a cost index. For
19 example, assume that transmission towers and fixtures were purchased by APS
20 in 1985 at an original cost of \$400,000. To determine RCN, the original cost
21 would be multiplied by the appropriate Handy-Whitman index factor for towers
22 and fixtures. In this case, the index factor is determined by dividing the current
23 year index of 347 for 2002 by the vintage year index of 245 for 1985, or
24 $347/245$, which equals 1.416. The index factor of 1.416 multiplied by the
25 original cost of \$400,000 equals the current reproduction cost or RCN of
26 \$566,400.

- 1 Q. WERE ALL ASSETS INDEXED AS YOU JUST DESCRIBED?
- 2 A. No, land and land rights, intangibles, capitalized leases, and leasehold
- 3 improvements are included in RCN at their original cost levels only, consistent
- 4 with previous treatment of these assets by the Commission.
- 5 Q. PLEASE DEFINE INTANGIBLES AND DESCRIBE THE AMOUNT OF
- 6 INTANGIBLES THAT ARE INCLUDED IN RCN AS SHOWN ON SFR
- 7 SCHEDULE B-4?
- 8 A. Intangibles are assets that provide future economic benefit but have no physical
- 9 substance. Examples include patents and computer software. APS' intangible
- 10 plant is included in column (a), line 4 of SFR Schedule B-4 at its original cost of
- 11 \$202,508,000 on December 31, 2002.
- 12 Q. BASED ON YOUR STUDY, WHAT IS THE RCN OF APS' UTILITY
- 13 PROPERTY DEVOTED TO SERVICE TO THE PUBLIC AS OF THE
- 14 END OF THE TEST YEAR?
- 15 A. Total RCN for APS' utility property is \$13,596,926,000 including the
- 16 \$202,508,000 of intangible plant that I just discussed. This total amount is
- 17 shown in column (c) of Attachment LLR-1, and in column (a) of SFR Schedule
- 18 B-4.
- 19 Q. WOULD YOU EXPLAIN HOW RCND WAS CALCULATED AS
- 20 SHOWN ON SFR SCHEDULE B-4?
- 21 A. Yes. RCN by FERC account (or Plant account) number is shown in column (a)
- 22 of SFR Schedule B-4. To arrive at RCND, RCN is multiplied by a "condition
- 23 percent," which is shown in column (b). RCND is shown in column (c). The
- 24 condition percent used to convert RCN to RCND is calculated by first taking the
- 25 original cost less accumulated depreciation (in other words, the net book value)
- 26 for all depreciable plant by FERC account. This is divided by the original cost
- for each FERC account to arrive at condition percent, also known as a net book

1 value percent. Thus, the condition percent is the percentage that results when
2 one compares original cost less accumulated depreciation and the original cost
3 of plant in service.

4 For example, using the same hypothetical that I used earlier, assume again that
5 transmission towers and fixtures have an original cost of \$400,000, and assume
6 accumulated depreciation of \$250,000. The original cost less accumulated
7 depreciation would be \$150,000, which is \$400,000 minus \$250,000. Also,
8 assume the towers and fixtures were purchased in 1985 and have a RCN value
9 of \$566,400. Using these assumptions, the condition percent is calculated by
10 dividing original cost less accumulated depreciation by original cost, or
11 \$150,000/\$400,000, resulting in 37.5%. Multiplying RCN by the condition
12 percent yields RCND. In this hypothetical, $\$566,400 \times 37.5\% = \$212,400$.

13
14 **Q. WOULD YOU PLEASE EXPLAIN SFR SCHEDULE B-4A?**

15 **A.** SFR Schedule B-4A shows the computation of adjusted jurisdictional RCND
16 rate base as of December 31, 2002. Column (a) presents data for Total RCND
17 rate base. Mr. Propper has provided the jurisdictional allocations of the Electric
18 RCND rate base between "ACC" and "Other" which is presented in columns (b)
19 and (c) respectively.

20
21 **Q. HOW DID YOU ARRIVE AT THE AMOUNTS SHOWN ON LINES 9 THROUGH 23 OF SFR SCHEDULE B-4A?**

22 **A.** The amounts shown on lines 9 through 23 of SFR Schedule B-4A for other rate
23 base elements, were obtained from SFR Schedule B-1, column (a), which is
24 sponsored by Mr. Froggatt. As in past presentations and consistent with past
25 Commission practice, the RCND of these rate base elements are stated at their
26 original cost levels.

1 Q. WOULD YOU PLEASE EXPLAIN LINES 25 AND 26 OF SFR
2 SCHEDULE B-4A?

3 A. Yes. The amounts shown on line 25 represent the RCND rate base on December
4 31, 2002. However, as explained in APS witness Donald G. Robinson's direct
5 testimony, the end of test year data needs to be adjusted to more closely reflect
6 the value of certain items of property when the proposed rates become effective.
7 Therefore, it was necessary to reflect in the RCND rate base, the pro forma rate
8 base adjustments described by Mr. Robinson. The RCND amounts of the pro
9 forma adjustments are shown in detail on SFR Schedule B-3 and their total
10 shown on line 26 of SFR Schedule B-4A.

11 Q. WHAT THEN IS THE TOTAL ADJUSTED RCND RATE BASE?

12 A. The total RCND rate base, as adjusted is \$6.7 billion. This is shown in SFR
13 Schedule B-4A, column (a), line 27.

14 Q. PLEASE EXPLAIN HOW YOU COMPUTED COLUMNS (B)
15 THROUGH (E) ON SFR SCHEDULE B-4A TO REFLECT THE
16 JURISDICTIONAL ALLOCATION?

17 A. The jurisdictional allocation of the RCND rate base elements between state
18 retail service (the Commission) and other jurisdictions (primarily FERC) was
19 made by applying the original cost jurisdiction relationships derived from
20 Schedule GJ, which is sponsored by APS witness Alan Propper. The
21 relationships of the allocations shown on line 2, excluding the Southern
22 California Edison ("SCE") 500 kV column, were used to allocate between
23 jurisdictions on line 8. Total RCN excludes the SCE 500 kV amounts. The data
24 shown in column (d) for the SCE 500 kV line represents known or directly
25 computed information. The jurisdictional allocations of lines 9 through 23,
26

1 because they are stated at original cost, were obtained directly from Schedule
2 GJ.

3
4 **Q. WOULD YOU PLEASE SUMMARIZE THE JURISDICTIONAL
5 ALLOCATION OF THE RCND RATE BASE AS OF DECEMBER 31,
6 2002 AFTER MAKING THE PRO FORMA ADJUSTMENTS?**

7 **A.** Yes. The Total Commission-jurisdictional RCND rate base after adjustments is
8 \$6.7 billion (SFR Schedule B-4A, column (b), line 27). After pro forma
9 adjustments, the Total All Other RCND rate base is \$17 million (SFR Schedule
10 B-4A, column (c)). The sum of columns (b) and (c) equals the Total RCND rate
11 base shown in column (a).

12 **Q. WOULD YOU PLEASE DISCUSS SFR SCHEDULE B-3?**

13 **A.** SFR Schedule B-3 presents the pro forma adjustments to the RCND rate base.
14 The pro forma adjustments reflect each of the rate base adjustments that are
15 discussed in more detail in Mr. Robinson's testimony.

16 **IV. ALLOWANCE FOR WORKING CAPITAL**

17 **Q. WHAT IS THE ALLOWANCE FOR WORKING CAPITAL SHOWN ON
18 SFR SCHEDULE B-1?**

19 **A.** It is an allowance for the amount of money that the utility has furnished from its
20 own funds for the purpose of satisfying ordinary business requirements, such as
21 cash required to maintain minimum bank balances and cash needed to bridge the
22 gap between the time expenses are paid by APS and the time revenues are
23 collected from customers. The allowance for working capital includes cash
24 working capital as well as certain inventories and non-cash items as shown on
25 page one of SFR Schedule B-5 .

26

1 Q. PLEASE DEFINE CASH WORKING CAPITAL.

2 A. Cash working capital is a component of the allowance for working capital. As
3 used in my testimony, cash working capital is the net amount of funds, provided
4 by either investors (positive) or customers (negative), needed to meet daily cash
5 operating expenses. The method used to estimate cash working capital is known
6 as a lead/lag study method, which is a method frequently used in the utility
7 industry.

8
9 Q. HAVE YOU PREPARED A SCHEDULE SETTING FORTH A
SUMMARY OF THE RESULTS OF THE STUDY?

10 A. Yes. Attachment LLR-2 was prepared to summarize the results of the lead/lag
11 study and the cash working capital requirement for the test year that ended
12 December 31, 2002.

13
14 Q. WHAT APPROACH TO MEASURING CASH WORKING CAPITAL IS
TAKEN IN THE LEAD/LAG STUDY BEING PRESENTED?

15 A. A lead/lag study measures the difference in time between (1) the time service is
16 rendered until the revenues for that service are received, and (2) the time that
17 fuel, purchased power, labor, materials, services, and other similar items are
18 used in providing service until they are paid for by APS. The difference between
19 each of these two periods is expressed as a number of days. The net number of
20 days (either positive or negative) times the average daily operating expenses that
21 are included in the calculation produces the measure of cash working capital
22 required for those operating expenses. Certain other more or less static cash
23 requirements, such as special deposits and working funds, and non rate-based
24 elements of rate-based components (such as depreciation and amortization) are
25 added to that amount to arrive at cash working capital.

26

1 Q. WOULD YOU PLEASE SUMMARIZE ATTACHMENT LLR-2?

2 A. Attachment LLR-2, shows the components of the net cash working capital
3 provided by operations. The net cash working capital of \$54,098,000, which
4 represents an increase in the overall working capital requirement, shown on
5 Attachment LLR-2 means that current operations require increased amounts of
6 capital over what is currently reflected in rate base.

7 Q. WOULD YOU PLEASE SUMMARIZE ATTACHMENT LLR-3?

8 A. Attachment LLR-3 shows the detailed components of the cash working capital
9 required for operating expenses. It sets forth the cash working capital
10 requirement for operating expenses by major categories of unadjusted test year
11 operating expense. The test year amount of expense (column 1) is multiplied by
12 the cash working capital factor (column 5) to arrive at the average daily cash
13 working capital requirement (column 6). Column 2 shows the average days of
14 delay (41.81 days) from the time service is rendered until payment is received
15 from customers. Column 3 shows the average days of delay in payment of
16 expenses from the time each category of expense was incurred.

17
18 Column 4 shows the net lag days (revenue lag less expense lag). The existence
19 of positive net lag days indicates the number of days investors must on average
20 provide additional funds to pay for the expense before it is recovered from
21 customers. Negative net lag days indicate that the collection of revenues for
22 service rendered on the day the expense was incurred will occur prior to that
23 expense being paid. Column 5, the cash working capital factor, is derived by
24 dividing net lag days in Column 4 by 365.

25
26

1 **Q. HOW IS THE AVERAGE REVENUE LAG PERIOD CALCULATED?**

2 A. There are three components to the average customer revenue lag period. The
3 first component measured is the average period that service is provided to the
4 customer before the meter is read. APS reads its meters once a month, therefore,
5 the average time between meter reading dates, and thus the average service
6 period between each meter read, is 30.42 days (365 days/12 months). Dividing
7 the service period by two produces the average period from the time service was
8 rendered until the meter read (15.21 days). The second component measured is
9 the average period from the time the meter is read until the customer is billed
10 (5.1 days). The third component is the average days from the time the customer
11 is billed until payment is received (22.21 days). The days from the billing date to
12 the collection date for retail customers was determined by analyzing APS'
13 billing process and calculating the average days of revenue that remained in
14 accounts receivable at the end of each month. The summation of these three
15 components produces the total average days of delay for recovering operating
16 expenses from customers ($15.21 + 5.1 + 22.21 = 42.52$). There are a few other
17 revenue items—specifically, transmission revenue, sales for resale, and rent—
18 which is combined with this to arrive at 41.81 total average revenue lag.

19 **Q. HOW ARE THE AVERAGE EXPENSE LAG PERIODS CALCULATED?**

20 A. The average expense lag periods were determined from individual analyses of
21 each major operating expense component. For some expense components, APS'
22 payment patterns for suppliers were identified by examination of all invoices for
23 purchases made during a representative period. The lag periods found for each
24 supplier were weighted to produce an average lag in the payment for that
25 expense component. The payroll expense component lag (18.45 days), for
26

1 example, was based on APS' payroll periods (employees are paid semi-monthly)
2 and the additional time from the end of the payroll period until employees and
3 withheld amounts were paid.

4
5 **Q. PLEASE EXPLAIN WHY YOU HAVE ASSIGNED ZERO LAG DAYS**
6 **TO VARIOUS EXPENSE COMPONENTS IN CALCULATING A CASH**
7 **WORKING CAPITAL REQUIREMENT?**

8
9 A. Certain expense items represent the consumption of capital assets that required
10 prior commitments of cash resources (amortization of nuclear fuel, depreciation
11 and amortization of utility property, amortization of a prepayment), which are
12 shown as rate base components, rather than requiring the current expenditure of
13 additional cash. Certain other expense items represent the creation of a non-cash
14 regulatory asset (Palo Verde cost deferrals) or a liability (deferred income taxes)
15 whose accumulated balances are being shown as individual rate base
16 components and which do not require an additional current cash expenditure.
17 For these items, sometimes referred to as "non-cash" expenses, I have assigned
18 zero lag days to both revenue and expense so that no separate cash working
19 capital requirement for these items would be calculated. Some of these items
20 are, however, included as a separate line item on my Attachment LLR-2. This is
21 necessary for APS to match rate base value to investor supplied capital. For
22 example, accumulated depreciation is a rate base component which represents
23 the amount of all depreciation expense that has been charged to customers as a
24 cost of service/revenue requirement item up to and including the current service
25 period. It reduces gross plant in rate base to arrive at net plant in service.
26 However, because customers don't pay instantly at the time of using service for
the depreciation components of their bill, it is necessary to reflect the amount
billed to customers for depreciation expense that remained unpaid by customers

1 at the end of the period. This non-rate base element of accumulated depreciation
2 is calculated by multiplying the item's daily cost of service amount by the
3 average number of days cost of service was not yet paid by customers at the end
4 of 2002 (revenue lag).

5
6 **V. DEPRECIATION & AMORTIZATION**

7 **Q. WHAT IS DEPRECIATION?**

8 **A.** Depreciation is the loss in service value (that is not restored by current
9 maintenance) that is incurred in connection with the consumption or prospective
10 retirement of plant in the course of service. Depreciation, as used in accounting,
11 is a method of distributing fixed capital costs, less net salvage value, over a
12 period of time by allocating annual amounts to expenses. Each annual amount of
13 depreciation accrual is part of that year's total cost of providing utility service.
14 Normally, the period of time over which the fixed capital cost is allocated to the
15 cost of service is equal to the period of time over which an asset renders
16 service—in other words, the asset's useful life. The most prevalent method of
17 allocating depreciation is to distribute an equal amount of cost to each year of
18 service life of an asset. This method is known as straight-line depreciation.

19
20 **Q. DID APS PREPARE A DEPRECIATION STUDY?**

21 **A.** Yes. The Depreciation Study is attached as Attachment LLR-4 to my testimony.

22 **Q. WHAT WAS THE PURPOSE OF THE DEPRECIATION STUDY?**

23 **A.** The purpose of the depreciation study was to determine the annual depreciation
24 accrual rates applicable to electric plant in service, including the Pinnacle West
25
26

1 Energy assets for which APS is seeking rate base treatment, to support APS'
2 request to change depreciation rates pursuant to A.A.C. R14-2-102.

3 **Q. WHO PREPARED THE DEPRECIATION STUDY?**

4 A. APS retained the Valuation and Rate Division of Gannett Fleming, Inc., of
5 Harrisburg, Pennsylvania to conduct the depreciation study for APS. Gannett
6 Fleming is an engineering and consulting firm with over 1,900 employees in 50
7 offices throughout the United States and Canada. It has very extensive
8 experience in conducting valuation and depreciation studies, as well as other
9 utility related studies.

10
11 **Q. WHAT WAS THE SOURCE OF DATA FOR THE DEPRECIATION STUDY?**

12 A. The source of the data analyzed by Gannett Fleming were the property records
13 of APS, and the property records of PWEC regarding the PWEC assets for
14 which APS is seeking rate base treatment. The data included plant additions,
15 retirements, transfers and adjustments through December 31, 2002. Gannett
16 Fleming analyzed such data for historical indications of service life and net
17 salvage; conducted on-site inspections; interviewed management for input
18 related to its outlook for the property; and reached conclusions on the future
19 survivor and net salvage characteristics of APS property based on the analyses,
20 reviews, outlook of management, and consideration of the estimates used for
21 other electric utilities.

22
23 **Q. WHAT DEPRECIATION SYSTEM DOES APS PROPOSE TO USE?**

24 A. APS proposes to continue using the straight line remaining life method of
25 depreciation with the average service life procedure that was used in APS' 1995
26

1 depreciation study and accepted by the Commission. The straight line remaining
2 life method is also widely used by utilities in the United States.

3
4 **Q. DOES APS USE A MODIFIED STRAIGHT LINE REMAINING LIFE**
5 **METHOD FOR DEPRECIABLE PROPERTY BY UTILIZING**
6 **COMPOSITE OR GROUP DEPRECIATION?**

7
8 A. Yes, also consistent with the 1995 study, APS continues to use a modified
9 straight-line method which calculates depreciation based on composites and
10 groups. A group consists of similar assets, while a composite is made up of
11 dissimilar assets. This method averages the service lives of a number of assets
12 using a weighted-average of the units and depreciates the group or composite as
13 if it were a single unit. Under this methodology, capital additions are added to
14 plant in service and capital retirements are recorded as a reduction to plant in
15 service and accumulated depreciation. This eliminates the income statement
16 impact of retiring plant, whether under- or over-depreciated. Net salvage, the
17 net amount of salvage and removal, is debited or credited to accumulated
18 depreciation as appropriate.

19
20 **Q. WHY DOES APS USE COMPOSITE AND GROUP DEPRECIATION?**

21 A. The advantage of these methods to a regulated utility is that the gains and losses
22 of retirements and the net salvage do not directly impact the expenses of the
23 company, thereby providing a more stable level of depreciation expense (and
24 hence earnings) which is more reflective of the generally long lives of utility
25 assets. Through statistical analysis, the depreciation accrual expense can be
26 adjusted periodically, as APS is requesting in this case, to fully depreciate plant
in service over the average life of the group and composite components.

1 Q. **WHAT DEPRECIATION SYSTEM DOES APS PROPOSE TO USE FOR**
2 **GENERAL PLANT ACCOUNTS?**

3 A. APS is proposing to use the straight line remaining life method of amortization,
4 as opposed to depreciation, for the following General Plant accounts: FERC
5 account 391 (office furniture, computer hardware, and office equipment); FERC
6 account 393 (stores equipment); FERC account 394 (tools, shop and garage
7 equipment); FERC account 395 (laboratory equipment); and FERC account 398
8 (miscellaneous equipment).

9 Q. **WHAT IS AMORTIZATION?**

10 A. Amortization is the gradual extinguishment of an amount in an account by
11 distributing such amount over a fixed period. The period of amortization is
12 usually either the life of the asset or liability to which it applies, or the period
13 during which it is anticipated that the benefit will be realized.

14 Q. **WHEN DOES APS USE AMORTIZATION?**

15 A. In some cases, amortization is generally simpler and more straightforward than
16 depreciation and applies to a very small portion of utility plant. Historically,
17 APS has amortized intangibles and certain other assets when the terms of
18 existence of the assets are readily defined or estimated due to limitation by law,
19 regulation, contract or other economic factors.

20
21 Q. **WHY SHOULD AMORTIZATION ALSO BE USED FOR THE**
22 **GENERAL PLANT ACCOUNTS YOU IDENTIFIED?**

23 A. The primary reason for the amortization of these accounts is that the cost and
24 effort required to unitize additions as well as periodically inventory equipment
25 and determine amounts to be retired, is disproportionate to the original cost of
26

1 the equipment when compared to other electric plant accounts. The original cost
2 in these accounts represents only about 1.0 percent of depreciable original plant.

3
4 **Q. OTHER THAN FOR GENERAL PLANT, WHAT AMORTIZATION RATES IS APS REQUESTING?**

5 A. APS is requesting that the amortization rates now in effect for assets that are
6 currently amortized be continued. See Attachment LLR-5 for a summary of
7 assets subject to amortization rates and the projected annual amortization
8 expense.

9
10 **Q. WOULD YOU PLEASE EXPLAIN SFR SCHEDULE C-2, LINE 7, COLUMN 19?**

11 A. This line presents the details of the pro forma adjustments that were made to
12 actual 2002 depreciation and amortization expense. APS' total annual
13 depreciation and amortization increased from \$284,660,000 to \$287,687,000—
14 an increase of \$3,027,000. The adjustments include: (1) 2002 accrual rates as
15 determined by the depreciation study applied to December 31, 2002 plant
16 balances; and (2) the impact of the change from depreciation to amortization for
17 certain general plant accounts.

18
19 **Q. ARE YOU REQUESTING SPECIFIC ACTION TO BE TAKEN BY THE COMMISSION REGARDING DEPRECIATION AND AMORTIZATION?**

20 A. Yes. APS is requesting the Commission approve the new depreciation rates as
21 presented in the depreciation study including, for the reasons discussed above,
22 the change in certain General Plant assets from depreciation to amortization; and
23 the continuance of the application of amortization rates currently in effect.
24
25
26

1 VI. STATEMENT OF FINANCIAL ACCOUNTING STANDARDS NO. 143

2 Q. **PLEASE EXPLAIN STATEMENT OF FINANCIAL ACCOUNTING**
3 **STANDARDS 143 REGARDING ASSET RETIREMENT OBLIGATIONS**
4 **("ARO").**

5 A. On January 1, 2003, APS adopted SFAS 143 as required by the Financial
6 Accounting Standards Board ("FASB"). The standard requires the fair value of
7 an asset retirement obligation to be recorded as a liability, along with an
8 offsetting plant asset, when the obligation is incurred. Accretion (or increase) of
9 the liability due to the passage of time will be recorded as an operating expense,
10 and the capitalized cost will be depreciated over the useful life of the long-lived
11 asset.

12 Q. **DOES SFAS 143 APPLY TO REGULATED UTILITIES?**

13 A. Yes. SFAS 143 applies to rate-regulated entities that meet the criteria for
14 application of FASB Statement No. 71, Accounting for the Effects of Certain
15 Types of Regulation, as provided in paragraph number 5 of that statement.
16 Paragraphs 9 and 11 of SFAS 71 provide specific conditions that must be met to
17 recognize a regulatory asset and a regulatory liability, respectively.

18 Q. **WHAT ASSETS HAVE AN ASSET RETIREMENT OBLIGATION?**

19 A. The Palo Verde, including the Palo Verde sale leaseback, Four Corners, Navajo,
20 and Childs Irving generating plants have asset retirement obligations generally
21 related to final plant decommissioning or removal costs based on regulatory or
22 contractual requirements that have been estimated and recorded at January 1,
23 2003. Portions of the transmission and distribution system are located on
24 federal, state or reservation lands or other rights of way and easements that have
25 various requirements for removal if the land rights were terminated. These
26

1 requirements for removal of system assets are also asset retirement obligations.
2 However, due to the perpetual life characteristics of these systems, the future
3 timing of the asset retirement obligations cannot be determined. Therefore, an
4 asset retirement obligation is not required to be estimated and recorded until
5 such future time as there may be an actual obligation to remove specific portions
6 of the transmission or distribution systems. As of January 1, 2003 there were no
7 asset retirement obligations recorded for transmission or distribution assets.

8
9 **Q. HOW IS SFAS 143 DIFFERENT FROM THE ACCOUNTING PRACTICE USED PRIOR TO JANUARY 1, 2003?**

10 A. Both methods recover the cost of removal over the life of the asset. The
11 difference is in the timing of the annual expense recognition of the removal
12 costs. The method used by APS prior to January 1, 2003, provided for the cost
13 accumulation of removal costs in a straight-line method ratably over the life of
14 the asset. The ARO requires the recognition of a liability when the obligation is
15 incurred and provides for the accretion (or increase) of the liability over time
16 with a cost accretion expense pattern that increases annually over the life of the
17 asset.

18
19 **Q. HOW IS THE ARO LIABILITY FOR REMOVAL COST ESTIMATED UNDER SFAS 143?**

20 A. SFAS 143 requires the assumption that a liability is settled with a third party for
21 an amount that would include third-party profit and market-risk premium, even
22 if the company involved has no intention of settling the liability in this manner.
23 The use of a third party assumption when a company intends to use internal
24 resources would overstate costs during the life of the asset, resulting in an
25 offsetting gain to be recognized when the asset is ultimately removed. It should
26

1 be noted again that only the timing, and not the ultimate amount, of expense
2 recognition is affected.

3
4 **Q. DOES APS CURRENTLY INTEND TO REMOVE ANY ASSETS WITH
AN ARO USING INTERNAL COMPANY RESOURCES FOR ALL OR
PART OF THE WORK?**

5 **A.** Yes, the assumption made in the nuclear decommissioning cost study was that
6 internal company resources would be used for portions of the Palo Verde
7 decommissioning work. By deferring the impacts of SFAS 143, the annual costs
8 of decommissioning will not be overstated for third-party profit and market-risk
9 premium over the life of the asset with the offsetting gain recognized in the year
10 that decommissioning is completed.

11
12 **Q. HOW WILL APS RECORD REMOVAL COSTS FOR ASSETS THAT
DO NOT HAVE AN ASSET RETIREMENT OBLIGATION?**

13 **A.** The cost of removal will continue to be included in the calculation of the
14 depreciation accrual and accumulated depreciation in the same manner as it was
15 prior to January 1, 2003, consistent with current rate making treatment.

16
17 **Q. WHAT ACTION REGARDING SFAS 143 DID APS TAKE WHEN
INITIALLY ADOPTING THE STANDARD ON JANUARY 1, 2003?**

18 **A.** On January 1, 2003 APS recorded a liability of \$219 million for its asset
19 retirement obligations including the accretion impacts; a \$67 million increase in
20 the book value of the associated assets; and a net reduction of \$192 million in
21 accumulated depreciation related primarily to the reversal of previously
22 recorded accumulated decommissioning and other removal costs related to these
23 obligations. Additionally, APS recorded a regulatory liability of \$40 million for
24 its asset retirement obligations. This regulatory liability represents the
25 cumulative timing differences between the amounts previously-recovered in
26

1 regulated rates in excess of the amount calculated under SFAS 143. The purpose
2 for these actions was to make implementation of the new standard revenue
3 neutral, so that the timing differences in the accounting would not increase or
4 decrease APS' overall revenue requirement.
5

6 **VII. COMMISSION ACTION REQUESTED**

7
8 **Q. IS APS REQUESTING ANY SPECIFIC COMMISSION ACTION REGARDING SFAS 143?**

9 A. Yes, APS requests the following language be included in the decision issued in
10 this proceeding: "The Commission approves APS' request that the application
11 of SFAS 143 be revenue neutral in the rate making process and authorizes APS
12 to place all impacts to its income statement caused by the adoption of SFAS 143
13 in regulatory accounts. Those impacts include the cumulative adjustment as of
14 January 1, 2003 and ongoing expense recognition impacts. The Commission
15 also approves APS' request that removal costs for assets that do not have an
16 asset retirement obligation continue to be reflected in the depreciation accrual
17 and accumulated depreciation."
18

19 **Q. IS APS REQUESTING ANY SPECIFIC COMMISSION ACTION REGARDING DEPRECIATION?**

20 A. Yes, APS is requesting that the Commission authorize APS to (1) implement the
21 depreciation rates as determined by the depreciation study; (2) change from
22 depreciation to amortization for the general plant accounts that I identified
23 earlier; and (3) continue the application of amortization rates that are currently
24 in effect.
25
26

1 Q. DOES THAT COMPLETE YOUR DIRECT TESTIMONY?

2 A. Yes.

3 1366090.1

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Appendix A
Statement of Qualifications
Laura L. Rockenberger

Laura L. Rockenberger is the Manager of Operations Accounting in the Shared Services Finance organization for Arizona Public Service Company ("APS"). In this position, Ms. Rockenberger has responsibility for Generation and Energy Delivery Operations & Maintenance and Fuel accounting; Asset Accounting; Accounting Services Administration, including payroll and accounts payable; and Accounting Systems. These accounting services are provided to all of the Pinnacle West Capital Corporation entities.

Ms. Rockenberger graduated cum laude from Miami University in 1982 with a Bachelor of Science Degree in Business with an emphasis in Accounting and is a member of Beta Gamma Sigma. Ms. Rockenberger also has a Bachelor of Arts with an emphasis in Music, graduating cum laude from the University of South Carolina, and is a member of Phi Beta Kappa. Ms. Rockenberger has been a Certified Public Accountant in Arizona since 1985 and is a member of the Arizona Society of Certified Public Accountants and the American Institute of Certified Public Accountants.

Ms. Rockenberger was employed in public accounting by Price Waterhouse from 1982 to 1984. She joined APS in 1985 as an Internal Auditor and held positions at the Palo Verde Nuclear Generating Station and Pinnacle West Capital Corporation. In 1987 Ms. Rockenberger joined SunCor Development Company ("SunCor"), a real estate subsidiary of Pinnacle West Capital Corporation. At SunCor, she held positions as the Director of Finance and Controller. In 1998 she joined APS as the Manager of Operations Accounting, her current position.

ARIZONA PUBLIC SERVICE COMPANY
 RCN by Major Plant Accounts
 With Contribution In Aid of Construction Identified by Function
 Test year Ended 12/31/02
 (Thousands of Dollars)

Line No.	Description	Gross Amount	Contributions In Aid Of Construction	Net Amount	Line No.
1.	Intangible Plant	\$ 202,508	\$ -	\$ 202,508	1.
2.	Production Plant	6,785,351	(50,779)	6,734,572	2.
3.	Transmission Plant	2,174,259	(76,925)	2,097,334	3.
4.	Distribution Plant	4,139,487	(124,567)	4,014,920	4.
5.	General Plant	555,785	(8,193)	547,592	5.
6.	Utility Plant In Service	<u>\$ 13,857,390</u>	<u>\$ (260,464)</u>	<u>\$ 13,596,926</u>	6.

ARIZONA PUBLIC SERVICE COMPANY
Cash Working Capital Summary - Lead Lag Study
Twelve Months Ended December 31, 2002

Line No.	Description	Working Capital Requirement (Source)	Line No.
1.	Cash Required For (Provided By) Operating Expenses	(20,969,724)	1.
2.	Non Rate-Based Elements of Rate-Based Components	74,809,380	2.
3.	Special Deposits and Working Funds	258,266	3.
4.	Net Cash Working Capital Required For (Provided By) Operations	<u>54,097,922</u>	4.

ARIZONA PUBLIC SERVICE COMPANY
Cash Working Capital Required for Operating Expenses - Lead Lag Study
Twelve Months Ended December 31, 2002

Line No.	Description	Amount (1)	Revenue Lag Days (2)	Expense Lag Days (3)	Net Lag Days (4)	CWC * Factor (5)	Working Capital Requirement (6)	Line No.
1.	Fuel for Electric Generation							1.
2.	Coal	157,018,541	41.81069	30.86168	10.94901	0.03000	4,710,556	2.
3.	Natural Gas	75,641,831	41.81069	41.62912	0.18156	0.00050	37,821	3.
4.	Fuel Oil	1,220,091	41.81069	27.40279	14.40790	0.03947	48,157	4.
5.	Nuclear:							5.
6.	Amortization	31,251,461	0.00000	0.00000	0.00000	0.00000	0	6.
7.	Spent Fuel	8,296,700	41.81069	76.37500	-34.56431	-0.09470	(785,697)	7.
8.	Total	<u>273,428,624</u>					<u>4,010,837</u>	8.
9.								9.
10.	Purchased Power	343,858,302	41.81069	37.83806	3.97263	0.01088	3,741,178	10.
11.	Transmission by Others	10,742,660	41.81069	34.02490	7.78579	0.02133	229,141	11.
12.	Total	<u>354,600,962</u>					<u>3,970,319</u>	12.
13.								13.
14.	Other Operations & Maintenance:							14.
15.	Payroll	213,167,640	41.81069	18.44744	23.36325	0.06401	13,644,861	15.
16.	Severance	28,223,377	0.00000	0.00000	0.00000	0.00000	0	16.
17.	Pension and OPEB	19,989,248	0.00000	0.00000	0.00000	0.00000	0	17.
18.	Employee Benefits	16,752,698	41.81069	17.02000	24.79069	0.06792	1,137,843	18.
19.	Payroll Taxes	13,328,087	41.81069	13.98000	27.83069	0.07625	1,016,267	19.
20.	Materials & Supplies	40,910,931	41.81069	29.34000	12.47069	0.03417	1,397,927	20.
21.	Franchise Payments	28,932,439	41.81069	68.19607	-26.38538	-0.07229	(2,091,526)	21.
22.	Vehicle Lease Payments	7,228,287	41.81069	38.09947	3.71122	0.01017	73,512	22.
23.	Rents	4,962,688	41.81069	-31.71012	73.52081	0.20143	999,634	23.
24.	Palo Verde Lease	45,202,210	41.81069	53.29167	-11.48098	-0.03145	(1,421,610)	24.
25.	Palo Verde S/L Gain Amort	(4,575,722)	0.00000	0.00000	0.00000	0.00000	0	25.
26.	Insurance	2,430,999	0.00000	0.00000	0.00000	0.00000	0	26.
27.	Uncollectible Accounts	2,680,484	0.00000	0.00000	0.00000	0.00000	0	27.
28.	Other	76,612,102	41.81069	37.55000	4.26069	0.01167	894,063	28.
29.	Total	<u>495,845,469</u>					<u>15,650,971</u>	29.
30.								30.
31.	Depreciation & Amortization	284,659,929	0.00000	0.00000	0.00000	0.00000	0	31.
32.	Amort of Electric Plt Acq Adj	15,443,124	0.00000	0.00000	0.00000	0.00000	0	32.
33.	Amort of Prop Losses & Reg Study Costs	99,536,541	0.00000	0.00000	0.00000	0.00000	0	33.
34.	Total	<u>399,639,594</u>					<u>0</u>	34.
35.								35.
36.	Income Taxes:							36.
37.	Current:							37.
38.	Federal	(61,961,636)	41.81069	60.05000	-18.23931	-0.04997	3,096,223	38.
39.	State	(17,998,536)	41.81069	62.34755	-20.53686	-0.05627	1,012,778	39.
40.	Deferred	206,767,266	0.00000	0.00000	0.00000	0.00000	0	40.
41.	Total	<u>126,807,094</u>					<u>4,109,001</u>	41.
42.								42.
43.	Other Taxes:							43.
44.	Property Taxes	103,969,716	41.81069	212.81731	-171.00662	-0.46851	(48,710,852)	44.
45.	Sales Taxes	3,955,025	0.00000	0.00000	0.00000	0.00000	0	45.
46.	Total	<u>107,924,741</u>					<u>(48,710,852)</u>	46.
47.								47.
48.	Total	<u>1,758,246,484</u>					<u>(20,969,724)</u>	48.

* CWC is rounded to 5 digits.

Attachment LLR-4

ARIZONA PUBLIC SERVICE COMPANY

PHOENIX, ARIZONA

DEPRECIATION STUDY

RECOMMENDED REMAINING LIFE
DEPRECIATION ACCRUAL RATES
AS OF DECEMBER 31, 2002



Gannett Fleming
Valuation and Rate Division

Harrisburg, Pennsylvania

Calgary, Alberta

Valley Forge, Pennsylvania

ARIZONA PUBLIC SERVICE COMPANY

Phoenix, Arizona

DEPRECIATION STUDY

i

RECOMMENDED REMAINING LIFE DEPRECIATION ACCRUAL RATES

AS OF DECEMBER 31, 2002

GANNETT FLEMING, INC. - VALUATION AND RATE DIVISION

Harrisburg, Pennsylvania

Calgary, Alberta

Valley Forge, Pennsylvania



Gannett Fleming

GANNETT FLEMING, INC.
P.O. Box 80794
Valley Forge, PA 19484-0794

Location:
Valley Forge Corporate Center
1010 Adams Avenue
Audubon, PA 19403-2402

Office: (610) 650-8101
Fax: (610) 650-8190
www.gannettfleming.com

June 12, 2003

Arizona Public Service Company
400 North 5th Street
Phoenix, AZ 85006

Attention Mr. Chris Froggatt
Vice President and Controller

ii

Ladies and Gentlemen:

Pursuant to your request, we have studied the service life and net salvage characteristics of the electric plant of the Arizona Public Service Company for the purpose of determining recommended annual depreciation accrual rates as of December 31, 2002. The results of our study are presented in the attached report.

The report sets forth a description of the concepts and methods upon which the study was based, our estimates of survivor curves and net salvage, and the ensuing remaining life depreciation accrual rates. The results of the study are summarized in the table on pages III-4 through III-7.

Respectfully submitted,

GANNETT FLEMING, INC.

JOHN F. WIEDMAYER, CDP
Supervisor, Depreciation Studies
Valuation and Rate Division

JFW:krm

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PART I. INTRODUCTION

ARIZONA PUBLIC SERVICE COMPANY

DEPRECIATION STUDY

PART I. INTRODUCTION

PLAN OF THE REPORT

This report presents the methods used in and the results of the depreciation study conducted for Arizona Public Service Company (APS or the Company). Part I, Introduction, contains statements with respect to the basis of the depreciation study. Part II, Methods Used in the Estimation of Depreciation, presents the methods and procedures used to analyze historical data and the procedures used to calculate annual and accrued depreciation. Part III, Results of Study, contains a summary tabulation of the annual and accrued depreciation calculations. The statistical support for the estimates of service life and net salvage, and the detailed calculations of the annual and accrued depreciation are set forth in the Appendices of the report.

BASIS OF THE STUDY

The purpose of the study was to determine the annual remaining life depreciation accrual rates applicable to electric plant in service as of December 31, 2002. For most accounts, the annual and accrued depreciation were calculated by the straight line method, remaining life basis, and the average service life procedure. For certain General Plant accounts, the annual and accrued depreciation are based on amortization accounting. Both types of calculations were based on original cost, attained ages and estimates of survivor curves and net salvage percents for each account as of December 31, 2002.

The change to amortization accounting for certain general plant accounts is recommended because of the disproportionate accounting effort required when compared to the minimal original cost of the large number of items in these accounts. Many electric utilities in North America have received approval to adopt amortization accounting for these accounts. An explanation of the calculation of the annual and accrued amortization is presented beginning on page II-35 of the report.

The service life and net salvage estimates used in the depreciation and amortization calculations were based on judgment which incorporated analyses of available historical data, a review of current policies and outlook with management, a field survey of the property, a general knowledge of the electric industry, and comparisons of the survivor curve and net salvage estimates from studies of other electric companies. The use of survivor curves to reflect the expected dispersion of retirement provides a consistent method of estimating depreciation for utility property. Iowa type survivor curves were used to depict the estimated survivor curves for most of the property groups. For the power plant structures and equipment in Accounts 311 through 346, probable retirement years were estimated and the life span procedure of calculating depreciation was used to provide for the simultaneous retirement of all associated property, surviving from various years of installation, at the time of the retirement of the major investment. The estimates of net salvage are expressed as the average net salvage percent of the investment to be incurred or recovered upon its retirement.

PART II. METHODS USED
IN THE ESTIMATION OF DEPRECIATION

PART II. METHODS USED IN THE ESTIMATION OF DEPRECIATION

DEPRECIATION

Depreciation, as applied to depreciable electric plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption of prospective retirement of electric plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand and requirements of public authority.

Depreciation as used in accounting is a method of distributing fixed capital costs, less net salvage, over a period of time by allocating annual amounts to expense. Each annual amount of such depreciation expense is part of that year's total cost of providing utility service. Normally, the period of time over which the fixed capital cost is allocated to the cost of service is equal to the period of time over which an item renders service, that is, the item's service life. The most prevalent method of allocation is to distribute an equal amount of cost to each year of service life. This method is known as the straight line method of depreciation.

The calculation of annual depreciation based on the straight line method requires the estimation of average life and salvage. These subjects are discussed in the sections which follow.

SERVICE LIFE AND NET SALVAGE ESTIMATION

Average Service Life

The use of an average service life for a property group implies that the various units in the group have different lives. Thus, the average life may be obtained by determining the separate lives of each of the units, or by constructing a survivor curve by plotting the number of units which survive at successive ages. A discussion of the general concept of survivor curves is presented. Also, the Iowa type survivor curves are reviewed.

Survivor Curves

The survivor curve graphically depicts the amount of property existing at each age throughout the life of an original group. From the survivor curve, the average life of the group, the remaining life expectancy, the probable life, and the frequency curve can be calculated. In Figure 1 a typical smooth survivor curve and the derived curves are illustrated. The average life is obtained by calculating the area under the survivor curve, from age zero to the maximum age, and dividing this area by the ordinate at age zero. The remaining life expectancy at any age can be calculated by obtaining the area under the curve, from the observation age to the maximum age, and dividing this area by the percent surviving at the observation age. For example, in Figure 1 the remaining life at age 30 years is equal to the crosshatched area under the survivor curve divided by 29.5 percent surviving at age 30. The probable life at any age is developed by adding the age and remaining life. If the probable life of the property is calculated for each year of age, the probable life curve shown in the chart can be developed. The frequency curve presents the number of units retired in each age interval and is derived by obtaining the differences between the amount of property surviving at the beginning and at the end of each interval.

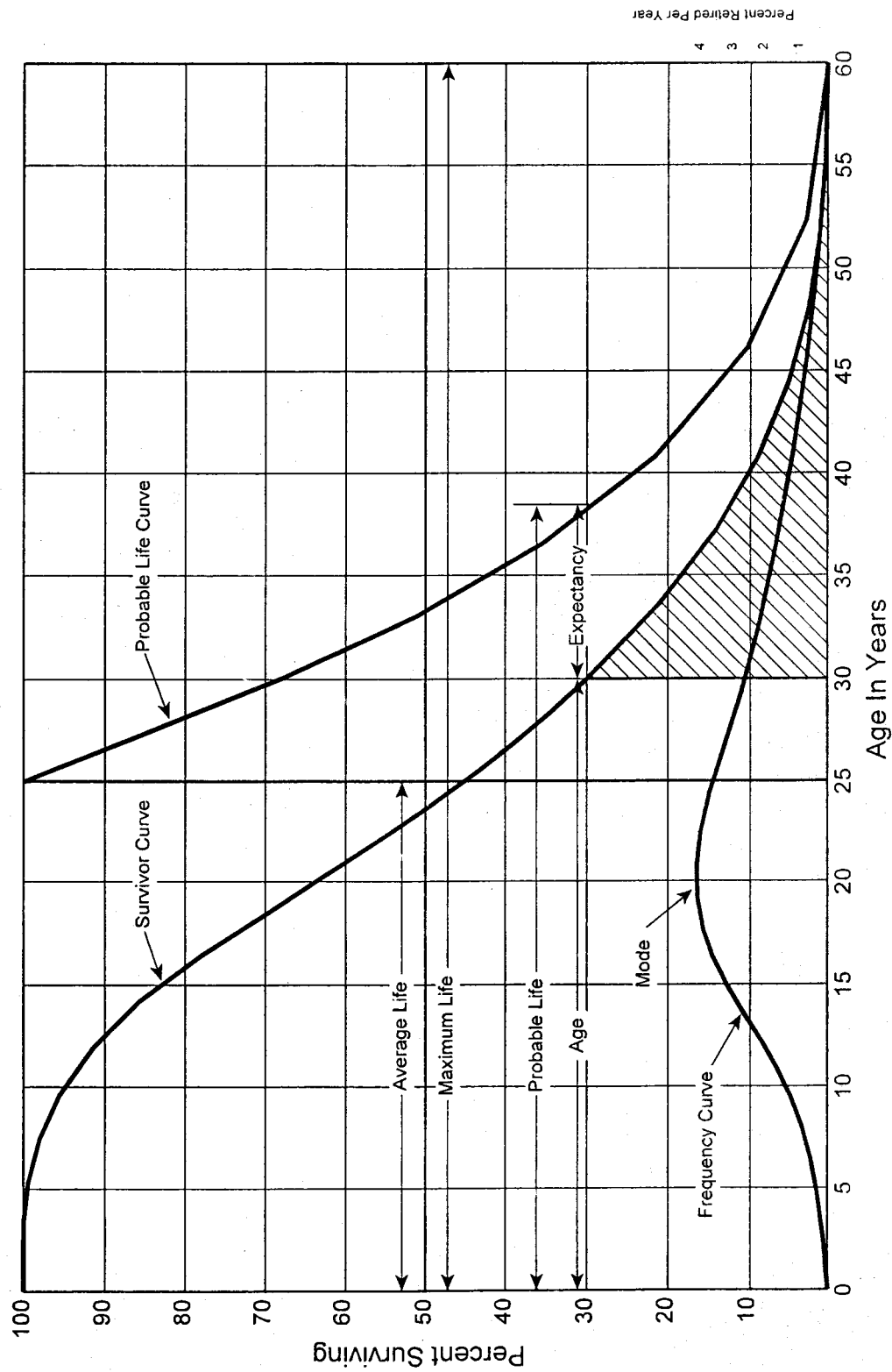


Figure 1. A Typical Survivor Curve and Derived Curves

Iowa Type Curves. The range of survivor characteristics usually experienced by utility and industrial properties is encompassed by a system of generalized survivor curves known as the Iowa type curves. There are four families in the Iowa system, labeled in accordance with the location of the modes of the retirements in relationship to the average life and the relative height of the modes. The left moded curves, presented in Figure 2, are those in which the greatest frequency of retirement occurs to the left of, or prior to, average service life. The symmetrical moded curves, presented in Figure 3, are those in which the greatest frequency of retirement occurs at average service life. The right moded curves, presented in Figure 4, are those in which the greatest frequency of retirement occurs to the right of, or after, average service life. The origin moded curves, presented in Figure 5, are those in which the greatest frequency of retirement occurs at the origin, or immediately after age zero. The letter designation of each family of curves (L, S, R or O) represents the location of the mode of the associated frequency curve with respect to the average service life. The numerical subscripts represent the relative heights of the modes of the frequency curves within each family.

The Iowa curves were developed at the Iowa State College Engineering Experiment Station through an extensive process of observation and classification of the ages at which industrial property had been retired. A report of the study which resulted in the classification of property survivor characteristics into 18 type curves, which constitutes three of the four families, was published in 1935 in the form of the Experiment

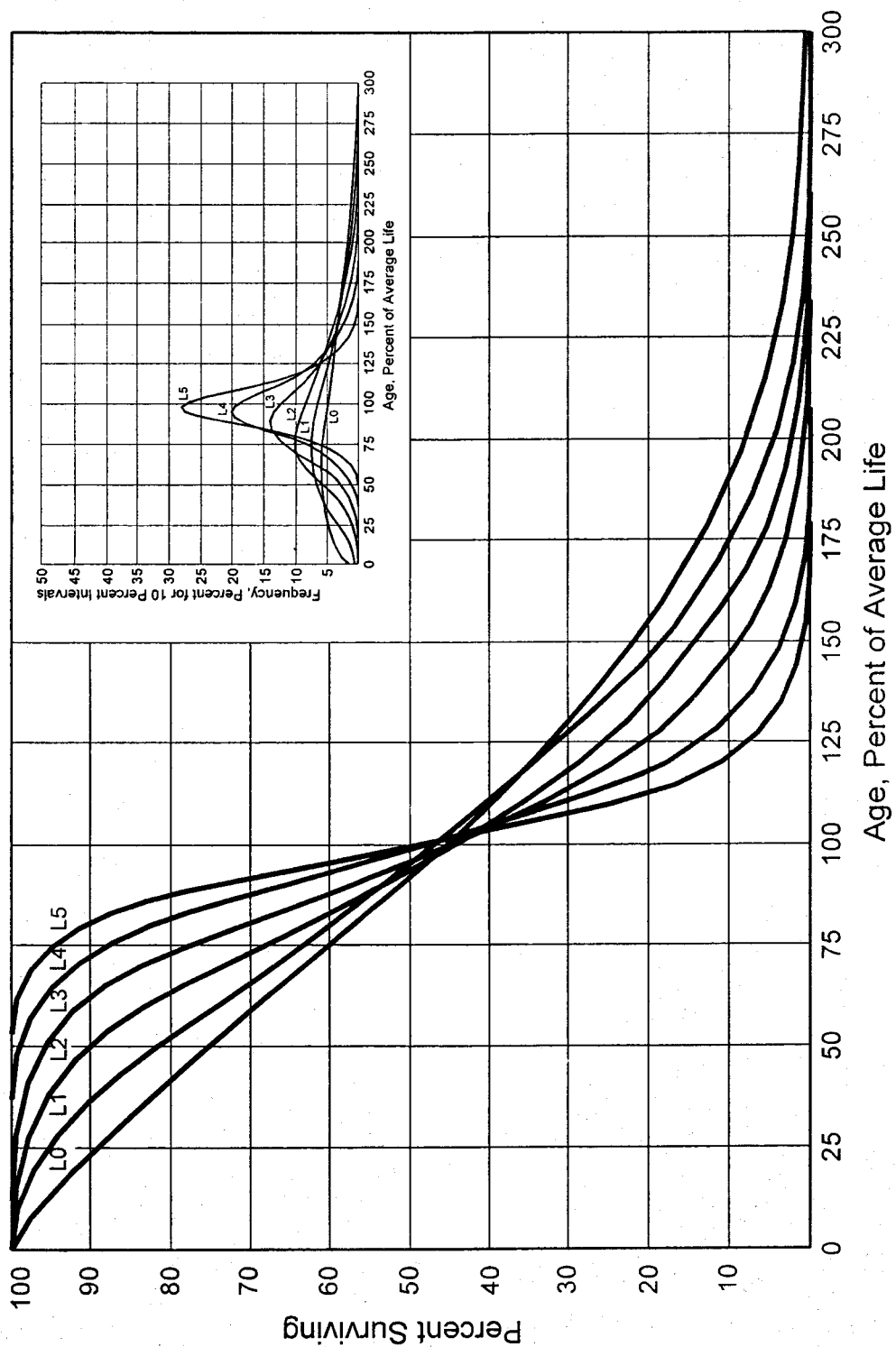


Figure 2. Left Modal or "L" Iowa Type Survivor Curves

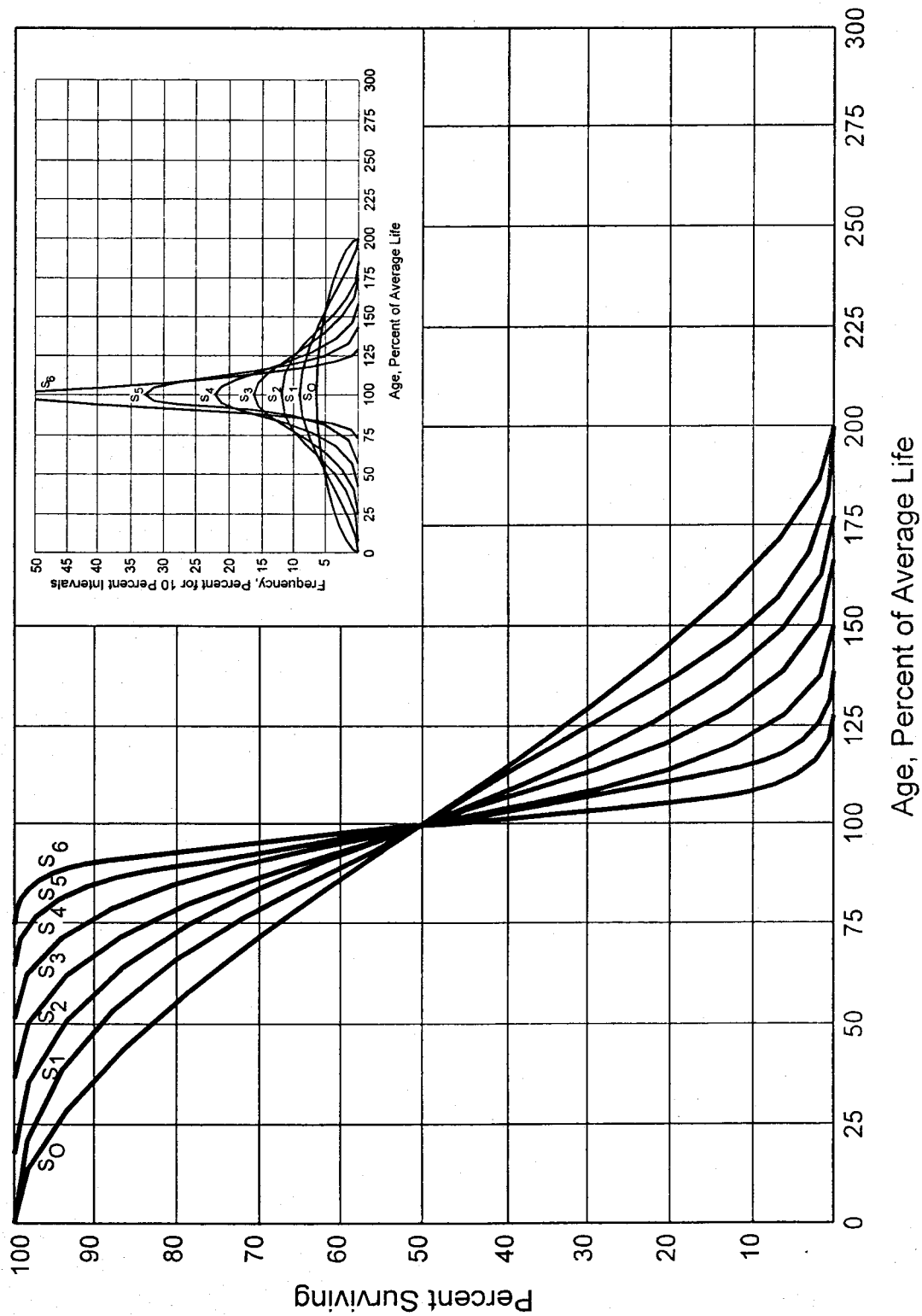


Figure 3. Symmetrical or "S" Iowa Type Survivor Curves

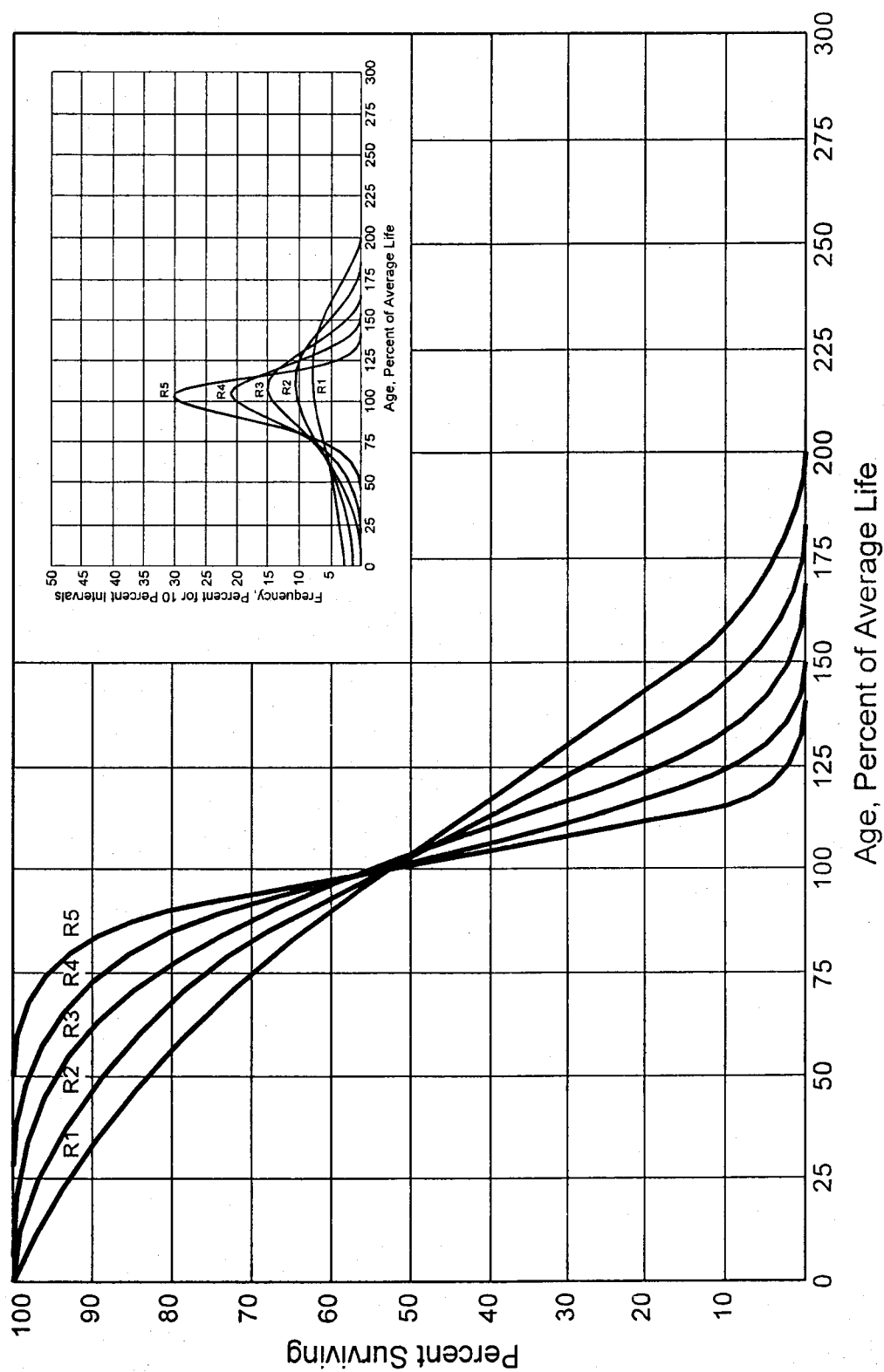


Figure 4. Right Modal or "R" Iowa Type Survivor Curves

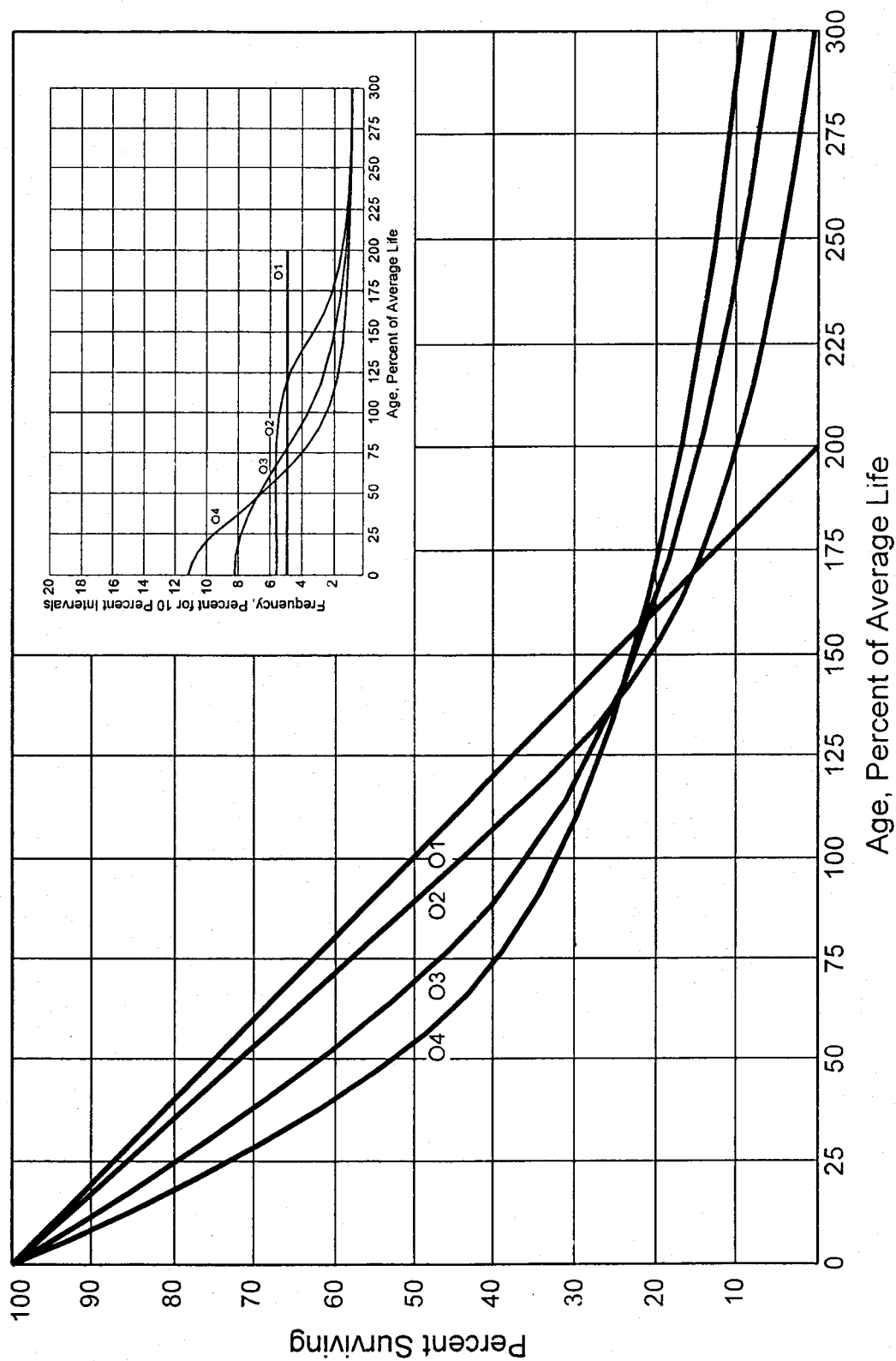


Figure 5. Origin Modal or "O" Iowa Type Survivor Curves

Station's Bulletin 125.¹ These type curves have also been presented in subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation."² In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student, submitted a thesis³ presenting his development of the fourth family consisting of the four O type survivor curves.

Retirement Rate Method of Analysis

The retirement rate method is an actuarial method of deriving survivor curves using the average rates at which property of each age group is retired. The method relates to property groups for which aged accounting experience is available or for which aged accounting experience is developed by statistically aging unaged amounts and is the method used to develop the original stub survivor curves in this study. The method (also known as the annual rate method) is illustrated through the use of an example in the following text, and is also explained in several publications, including "Statistical Analyses of Industrial Property Retirements,"⁴ "Engineering Valuation and Depreciation,"⁵ and "Depreciation Systems."⁶

¹Winfrey, Robley. Statistical Analyses of Industrial Property Retirements. Iowa State College, Engineering Experiment Station, Bulletin 125. 1935.

²Marston, Anson, Robley Winfrey and Jean C. Hempstead. Engineering Valuation and Depreciation, 2nd Edition. New York, McGraw-Hill Book Company. 1953.

³Couch, Frank V. B., Jr. "Classification of Type O Retirement Characteristics of Industrial Property." Unpublished M.S. thesis (Engineering Valuation). Library, Iowa State College, Ames, Iowa. 1957.

⁴Winfrey, Robley, Supra Note 1.

⁵Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 2.

⁶Wolf, Frank K. and W. Chester Fitch. Depreciation Systems. Iowa State University Press. 1994

The average rate of retirement used in the calculation of the percent surviving for the survivor curve (life table) requires two sets of data: first, the property retired during a period of observation, identified by the property's age at retirement; and second, the property exposed to retirement at the beginning of the age intervals during the same period. The period of observation is referred to as the experience band, and the band of years which represent the installation dates of the property exposed to retirement during the experience band is referred to as the placement band. An example of the calculations used in the development of a life table follows on pages II-12 and II-13. The example includes schedules of annual aged property transactions, a schedule of plant exposed to retirement, a life table, and illustrations of smoothing the stub survivor curve.

Schedules of Annual Transactions in Plant Records. The property group used to illustrate the retirement rate method is observed for the experience band 1992-2001 during which there were placements during the years 1987-2001. In order to illustrate the summation of the aged data by age interval, the data were compiled in the manner presented in Tables 1 and 2 on pages II-12 and II-13. In Table 1, the year of installation (year placed) and the year of retirement are shown. The age interval during which a retirement occurred is determined from this information. In the example which follows, \$10,000 of the dollars invested in 1987 were retired in 1992. The \$10,000 retirement occurred during the age interval between 4½ and 5½ years on the basis that approximately one-half of the amount of property was installed prior to and subsequent to July 1 of each year. That is, on the average, property installed during a year is placed in service at the midpoint of the year for the purpose of the analysis. All retirements also are stated as

TABLE 1. RETIREMENTS FOR EACH YEAR 1992-2001
SUMMARIZED BY AGE INTERVAL

Experience Band 1992-2001										Placement Band 1987-2001		
Year Placed (1)	Retirements, Thousands of Dollars										Total During Age Interval (12)	Age Interval (13)
	1992 (2)	1993 (3)	1994 (4)	1995 (5)	1996 (6)	1997 (7)	1998 (8)	1999 (9)	2000 (10)	2001 (11)		
1987	10	11	12	13	14	16	23	24	25	26	26	13½-14½
1988	11	12	13	15	16	18	20	21	22	19	44	12½-13½
1989	11	12	13	14	16	17	19	21	22	18	64	11½-12½
1990	8	9	10	11	11	13	14	15	16	17	83	10½-11½
1991	9	10	11	12	13	14	16	17	19	20	93	9½-10½
1992	4	9	10	11	12	13	14	15	16	20	105	8½-9½
1993		5	11	12	13	14	15	16	18	20	113	7½-8½
1994			6	12	13	15	16	17	19	19	124	6½-7½
1995				6	13	15	16	17	19	19	131	5½-6½
1996					7	14	16	17	19	20	143	4½-5½
1997						8	18	20	22	23	146	3½-4½
1998							9	20	22	25	150	2½-3½
1999								11	23	25	151	1½-2½
2000									11	24	153	½-1½
2001										13	80	0-½
Total	53	68	86	106	128	157	196	231	273	308	1,606	

TABLE 2. OTHER TRANSACTIONS FOR EACH YEAR 1992-2001
SUMMARIZED BY AGE INTERVAL

Experience Band 1992-2001										Placement Band 1987-2001		
Year Placed (1)	Acquisitions, Transfers, and Sales, Thousands of Dollars										Total During Age Interval (12)	Age Interval (13)
	1992 (2)	1993 (3)	1994 (4)	1995 (5)	1996 (6)	1997 (7)	1998 (8)	1999 (9)	2000 (10)	2001 (11)		
1987	-	-	-	-	-	-	60 ^a	-	-	-	-	13½-14½
1988	-	-	-	-	-	-	-	-	-	-	-	12½-13½
1989	-	-	-	-	-	-	-	-	-	-	-	11½-12½
1990	-	-	-	-	-	-	-	(5) ^b	-	-	60	10½-11½
1991	-	-	-	-	-	-	-	6 ^a	-	-	-	9½-10½
1992	-	-	-	-	-	-	-	-	-	-	(5)	8½-9½
1993	-	-	-	-	-	-	-	-	-	-	6	7½-8½
1994	-	-	-	-	-	-	-	-	-	-	-	6½-7½
1995	-	-	-	-	-	-	-	(12) ^b	-	-	-	5½-6½
1996	-	-	-	-	-	-	-	-	22 ^a	-	-	4½-5½
1997	-	-	-	-	-	-	-	(19) ^b	-	-	10	3½-4½
1998	-	-	-	-	-	-	-	-	-	-	-	2½-3½
1999	-	-	-	-	-	-	-	-	-	(102) ^c	(121)	1½-2½
2000	-	-	-	-	-	-	-	-	-	-	-	½-1½
2001	-	-	-	-	-	-	-	-	-	-	-	0-½
Total	-	-	-	-	-	-	60	(30)	22	(102)	(50)	

^a Transfer Affecting Exposures at Beginning of Year

^b Transfer Affecting Exposures at End of Year

^c Sale with Continued Use

Parentheses denote Credit amount.

occurring at the midpoint of a one-year age interval of time, except the first age interval which encompasses only one-half year.

The total retirements occurring in each age interval in a band are determined by summing the amounts for each transaction year-installation year combination for that age interval. For example, the total of \$143,000 retired for age interval 4½-5½ is the sum of the retirements entered on Table 1 immediately above the stairstep line drawn on the table beginning with the 1992 retirements of 1987 installations and ending with the 2001 retirements of the 1996 installations. Thus, the total amount of 143 for age interval 4½-5½ equals the sum of:

$$10 + 12 + 13 + 11 + 13 + 13 + 15 + 17 + 19 + 20.$$

In Table 2, other transactions which affect the group are recorded in a similar manner. The entries illustrated include transfers and sales. The entries which are credits to the plant account are shown in parentheses. The items recorded on this schedule are not totaled with the retirements but are used in developing the exposures at the beginning of each age interval.

Schedule of Plant Exposed to Retirement. The development of the amount of plant exposed to retirement at the beginning of each age interval is illustrated in Table 3 on page II-15.

The surviving plant at the beginning of each year from 1992 through 2001 is recorded by year in the portion of the table headed "Annual Survivors at the Beginning of the Year." The last amount entered in each column is the amount of new plant added to the group during the year. The amounts entered in Table 3 for each successive year following the beginning balance or addition are obtained by adding or subtracting the net

TABLE 3. PLANT EXPOSED TO RETIREMENT JANUARY 1
OF EACH YEAR 1992-2001 SUMMARIZED BY AGE INTERVAL

Experience Band 1992-2001

Placement Band 1987-2001

Year Placed	Exposures, Thousands of Dollars											Total at Beginning of Age Interval (12)	Age Interval (13)
	1992 (1)	1993 (2)	1994 (3)	1995 (4)	1996 (5)	1997 (6)	1998 (7)	1999 (8)	2000 (9)	2001 (10)	2002 (11)		
1987	255	245	234	222	209	195	239	216	192	167	167	167	13½-14½
1988	279	268	256	243	228	212	194	174	153	131	131	323	12½-13½
1989	307	296	284	271	257	241	224	205	184	162	162	531	11½-12½
1990	338	330	321	311	300	289	276	262	242	226	226	823	10½-11½
1991	376	367	357	346	334	321	307	297	280	261	261	1,097	9½-10½
1992	420 ^a	416	407	397	386	374	361	347	332	316	316	1,503	8½-9½
1993		460 ^a	455	444	432	419	405	390	374	356	356	1,952	7½-8½
1994			510 ^a	504	492	479	464	448	431	412	412	2,463	6½-7½
1995				580 ^a	574	561	546	530	501	482	482	3,057	5½-6½
1996					660 ^a	653	639	623	628	609	609	3,789	4½-5½
1997						750 ^a	742	724	685	663	663	4,332	3½-4½
1998							850 ^a	841	821	799	799	4,955	2½-3½
1999								960 ^a	949	926	926	5,719	1½-2½
2000									1,080 ^a	1,069	1,069	6,579	½-1½
2001										1,220 ^a	1,220 ^a	7,490	0-½
Total	1,975	2,382	2,824	3,318	3,872	4,494	5,247	6,017	6,852	7,799	7,799	44,780	

^a Additions during the year.

entries shown on Tables 1 and 2. For the purpose of determining the plant exposed to retirement, transfers-in are considered as being exposed to retirement in this group at the beginning of the year in which they occurred, and the sales and transfers-out are considered to be removed from the plant exposed to retirement at the beginning of the following year. Thus, the amounts of plant shown at the beginning of each year are the amounts of plant from each placement year considered to be exposed to retirement at the beginning of each successive transaction year. For example, the exposures for the installation year 1997 are calculated in the following manner:

Exposures at age 0	= amount of addition	= \$750,000
Exposures at age ½	= \$750,000 - \$ 8,000	= \$742,000
Exposures at age 1½	= \$742,000 - \$18,000	= \$724,000
Exposures at age 2½	= \$724,000 - \$20,000 - \$19,000	= \$685,000
Exposures at age 3½	= \$685,000 - \$22,000	= \$663,000

For the entire experience band 1992-2001, the total exposures at the beginning of an age interval are obtained by summing diagonally in a manner similar to the summing of the retirements during an age interval (Table 1). For example, the figure of 3,789, shown as the total exposures at the beginning of age interval 4½ -5½, is obtained by summing:

$$255 + 268 + 284 + 311 + 334 + 374 + 405 + 448 + 501 + 609.$$

Original Life Table. The original life table, illustrated in Table 4 on page II-17, is developed from the totals shown on the schedules of retirements and exposures, Tables 1 and 3, respectively. The exposures at the beginning of the age interval are obtained from the corresponding age interval of the exposure schedule, and the retirements during the age interval are obtained from the corresponding age interval of the retirement schedule. The retirement ratio is the result of dividing the retirements during the

TABLE 4. ORIGINAL LIFE TABLE
CALCULATED BY THE RETIREMENT RATE METHOD

Experience Band 1992-2001

Placement Band 1987-2001

(Exposure and Retirement Amounts are in Thousands of Dollars)

Age at Beginning of Interval (1)	Exposures at Beginning of Age Interval (2)	Retirements During Age Interval (3)	Retirement Ratio (4)	Survivor Ratio (5)	Percent Surviving at Beginning of Age Interval (6)
0.0	7,490	80	0.0107	0.9893	100.00
0.5	6,579	153	0.0233	0.9767	98.93
1.5	5,719	151	0.0264	0.9736	96.62
2.5	4,955	150	0.0303	0.9697	94.07
3.5	4,332	146	0.0337	0.9663	91.22
4.5	3,789	143	0.0377	0.9623	88.15
5.5	3,057	131	0.0429	0.9571	84.83
6.5	2,463	124	0.0503	0.9497	81.19
7.5	1,952	113	0.0579	0.9421	77.11
8.5	1,503	105	0.0699	0.9301	72.65
9.5	1,097	93	0.0848	0.9152	67.57
10.5	823	83	0.1009	0.8991	61.84
11.5	531	64	0.1205	0.8795	55.60
12.5	323	44	0.1362	0.8638	48.90
13.5	<u>167</u>	<u>26</u>	0.1557	0.8443	42.24
					35.66
Total	<u>44,780</u>	<u>1,606</u>			

Column 2 from Table 3, Column 12, Plant Exposed to Retirement.

Column 3 from Table 1, Column 12, Retirements for Each Year.

Column 4 = Column 3 divided by Column 2.

Column 5 = 1.0000 minus Column 4.

Column 6 = Column 5 multiplied by Column 6 as of the Preceding Age Interval.

age interval by the exposures at the beginning of the age interval. The percent surviving at the beginning of each age interval is derived from survivor ratios, each of which equals one minus the interval by the retirement ratio. The percent surviving is developed by starting with 100% at age zero and successively multiplying the percent surviving at the beginning of each interval by the survivor ratio, i.e., one minus the retirement ratio for that age interval. The calculations necessary to determine the percent surviving at age 5½ are as follows:

Percent surviving at age 4½	=	88.15
Exposures at age 4½	=	3,789,000
Retirements from age 4½ to 5½	=	143,000
Retirement Ratio	=	$143,000 \div 3,789,000 = 0.0377$
Survivor Ratio	=	$1.000 - 0.0377 = 0.9623$
Percent surviving at age 5½	=	$(88.15) \times (0.9623) = 84.83$

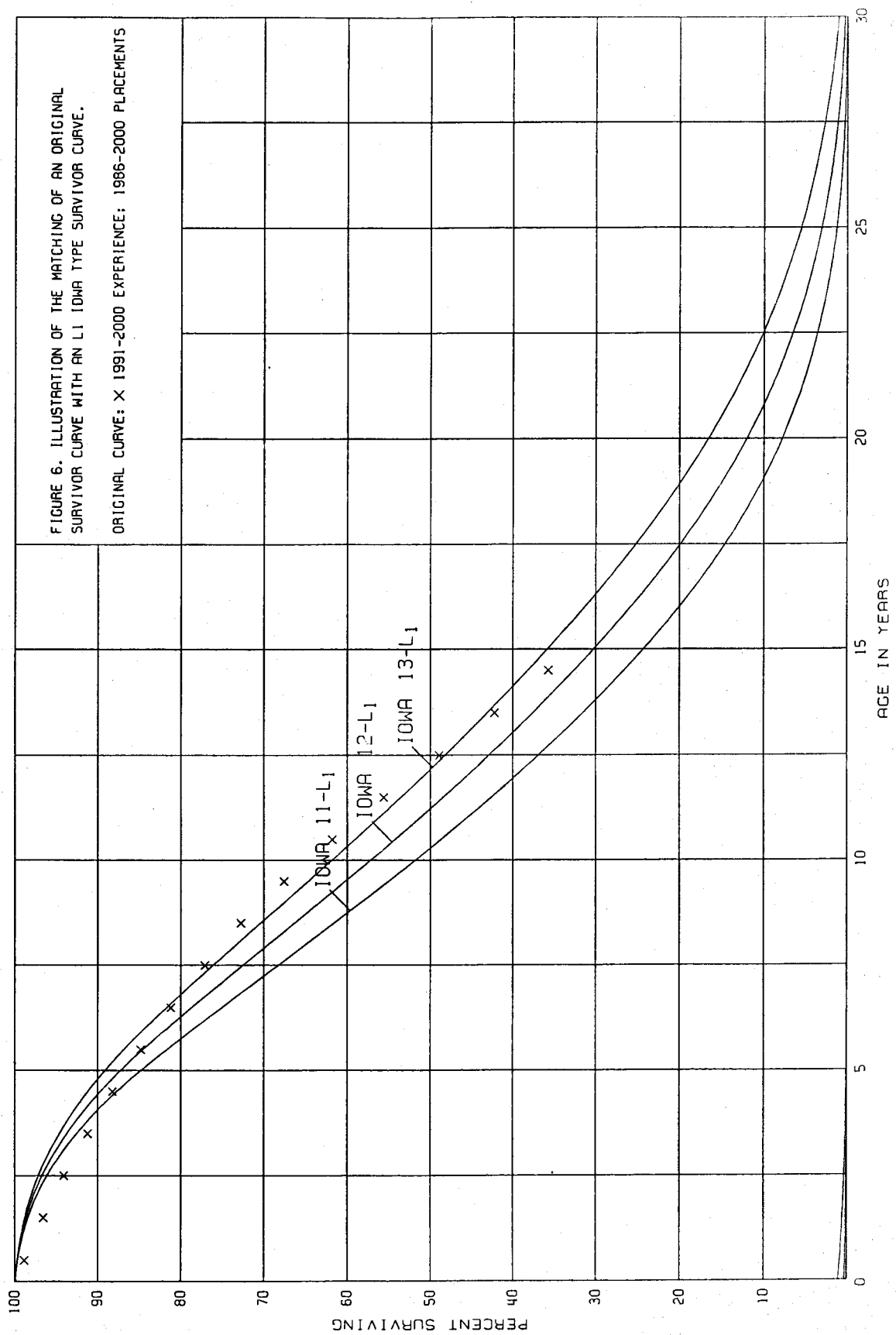
The totals of the exposures and retirements (columns 2 and 3) are shown for the purpose of checking with the respective totals in Tables 1 and 3. The ratio of the total retirements to the total exposures, other than for each age interval, is meaningless.

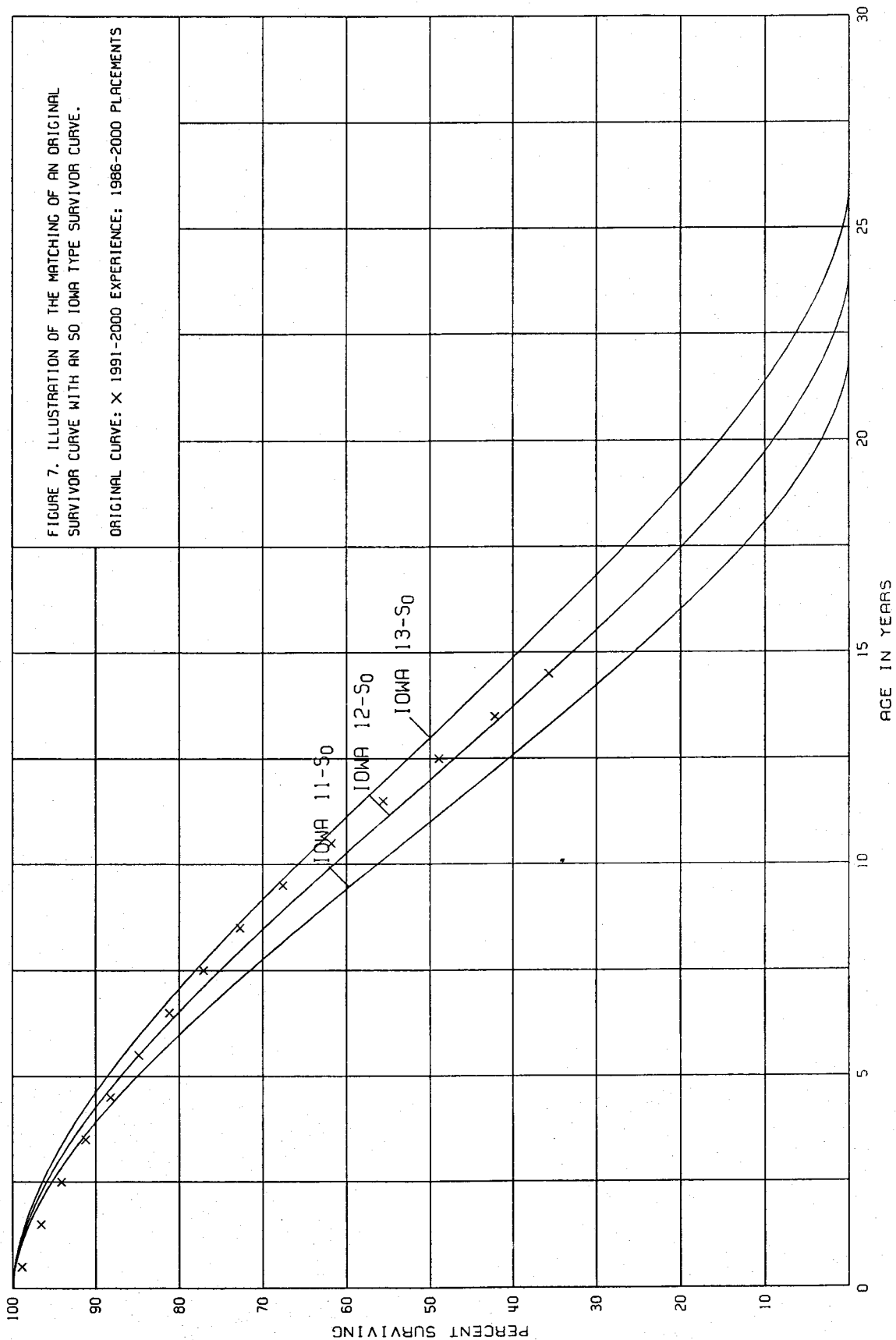
The original survivor curve is plotted from the original life table (column 6, Table 4). When the curve terminates at a percent surviving greater than zero, it is called a stub survivor curve. Survivor curves developed from retirement rate studies generally are stub curves.

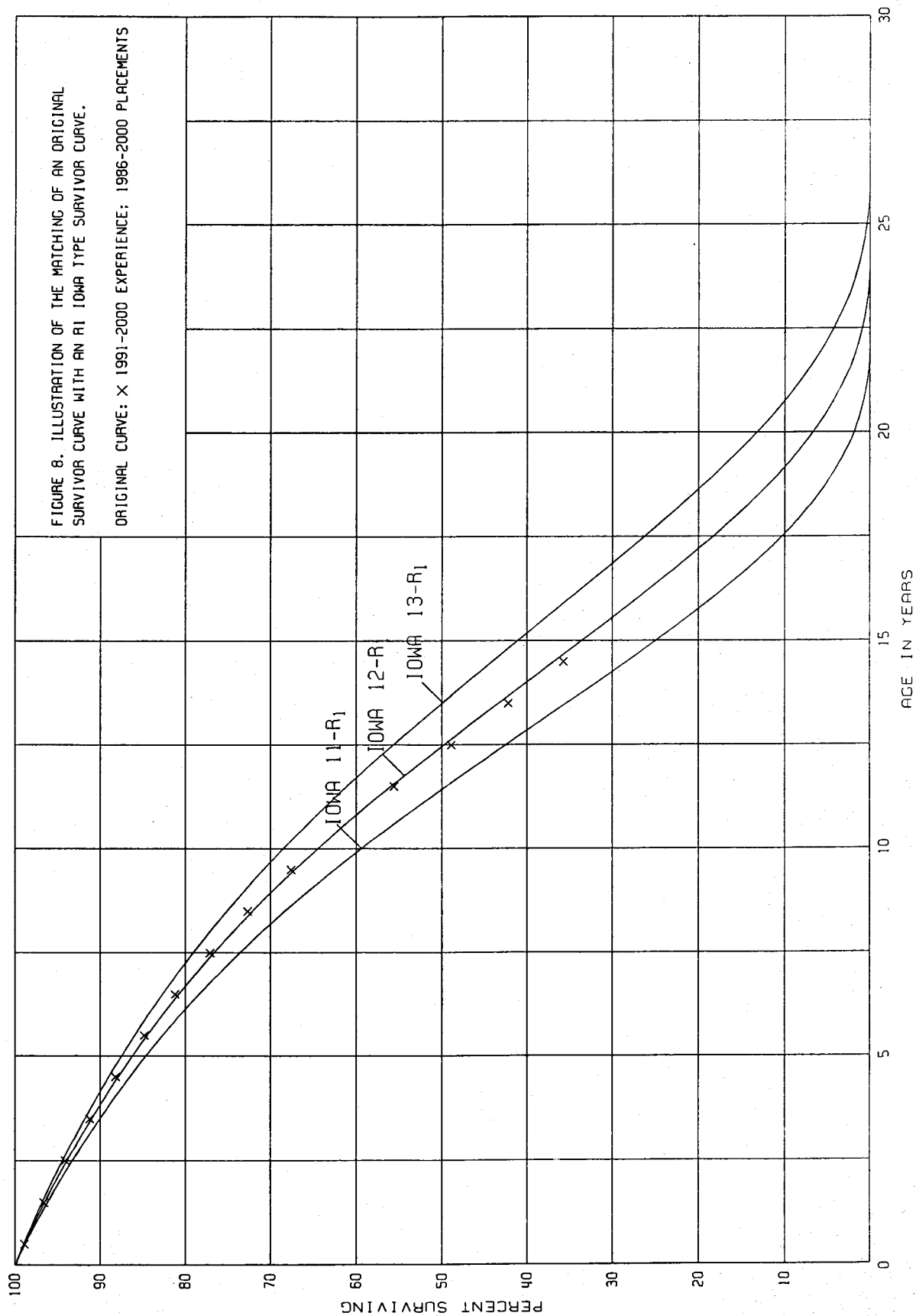
Smoothing the Original Survivor Curve. The smoothing of the original survivor curve eliminates any irregularities and serves as the basis for the preliminary extrapolation to zero percent surviving of the original stub curve. Even if the original survivor curve is complete from 100% to zero percent, it is desirable to eliminate any irregularities as there is still an extrapolation for the vintages which have not yet lived to the age at which the

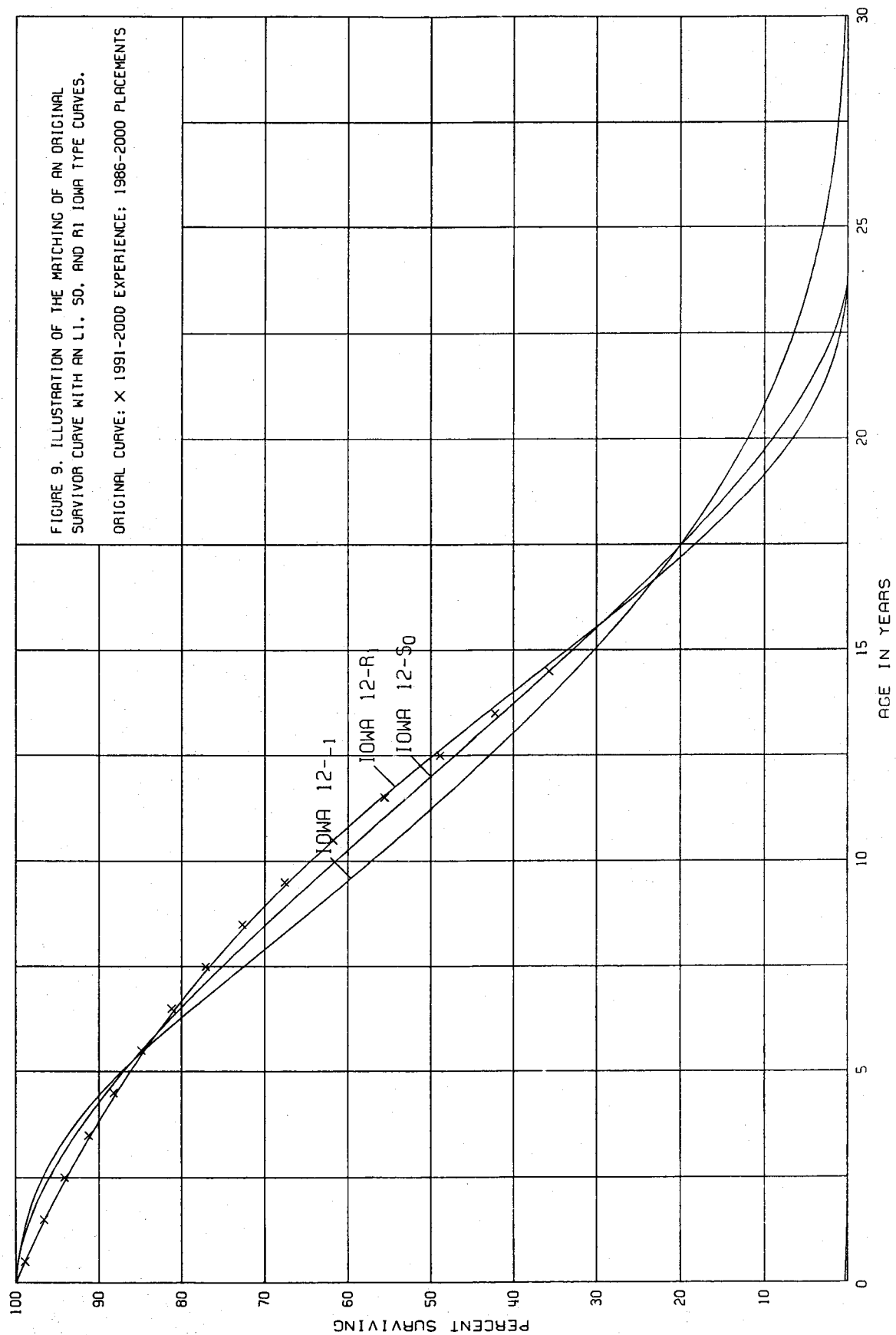
curve reaches zero percent. In this study, the smoothing of the original curve with established type curves was used to eliminate irregularities in the original curve.

The Iowa type curves are used in this study to smooth those original stub curves which are expressed as percents surviving at ages in years. Each original survivor curve was compared to the Iowa curves using visual and mathematical matching in order to determine the better fitting smooth curves. In Figures 6, 7, and 8 the original curve developed in Table 4 is compared with the L, S, and R Iowa type curves which most nearly fit the original survivor curve. In Figure 6 the L1 curve with an average life between 12 and 13 years appears to be the best fit. In Figure 7 the S0 type curve with a 12-year average life appears to be the best fit and appears to be better than the L1 fitting. In Figure 8 the R1 type curve with a 12-year average life appears to be the best fit and appears to be better than either the L1 or the S0. In Figure 9 the three fittings, 12-L1, 12-S0, and 12-R1 are drawn for comparison purposes. It is probable that the 12-R1 Iowa curve would be selected as the most representative of the plotted survivor characteristics of the group, assuming no contrary relevant factors external to the analysis of historical data.









Service Life Considerations

The service life estimates were based on judgment which considered a number of factors. The primary factors were the statistical analyses of data; current Company policies and outlook as determined during field reviews of the property and other conversations with management; and the survivor curve estimates from previous studies of this company and other electric companies.

For 13 of the 58 plant accounts and subaccounts, the statistical analyses resulted in good to excellent indications of complete survivor patterns. These accounts represent 41 percent of depreciable electric plant studied. Generally, the information external to the statistics led to no significant departure from the indicated survivor curves for the accounts listed below. The statistical support for the service life estimates is presented in Appendix A.

TRANSMISSION PLANT

353	Station Equipment
355	Poles and Fixtures - Wood

DISTRIBUTION PLANT

362	Station Equipment
364	Poles, Towers and Fixtures - Wood
365	Overhead Conductors and Devices
366	Underground Conduit
367	Underground Conductors and Devices
368	Line Transformers
370	Meters
371	Installations on Customers Premises
373	Street Lighting and Signal Systems

GENERAL PLANT

390	Structures and Improvements
397	Communication Equipment

Account 355, Poles and Fixtures - Wood, is used to illustrate the manner in which the study was conducted for the group of accounts in the preceding list. Aged plant accounting data have been compiled for the years 1972 through 2001. These data have been coded in the course of the Company's normal recordkeeping according to account or property group, type of transaction, year in which the transaction took place, and year in which the electric plant was placed in service. The retirements, other plant transactions, and plant additions were analyzed by the retirement rate method.

The survivor curve estimate is based on the statistical indication for the period 1973 through 2001. The Iowa 48-R1.5 is an excellent fit of the significant portion of the original survivor curve. The 48-year service life is at the upper end of the typical service life range of 35 to 50 years for poles and fixtures. The previous estimate was the Iowa 43-R1.

The primary causes of retirements have been inadequacy, decay and pole relocations. The poles are retired due to their inability to support heavier conductors, in addition to the degradation of the poles caused by natural sources, i.e., termites, woodpeckers and decay. These causes of retirement are expected to continue in the foreseeable future.

The production plant accounts comprise 23 of the 58 plant accounts or subaccounts and represent 47 percent of depreciable electric plant studied. Inasmuch as production plant consists of large generating units, the life span technique was employed in conjunction with the use of interim survivor curves which reflect interim retirements that occur prior to the ultimate retirement of the major unit. An interim survivor curve was estimated for each plant account, inasmuch as the rate of interim retirements differs from account to account. The interim survivor curves estimated for certain steam and nuclear production plant accounts were based on the retirement rate method of life analysis which incorporated experienced

and estimated aged retirements for the period 1973 through 2010 for the steam plants and the period 1986 through 2010 for the nuclear plants. The 2002 through 2010 retirements were based on replacements incorporated in the Company's 10-year capital plan for production facilities. The statistical support for the interim rates of retirement for production plant accounts are set forth in Appendix A.

The life span estimates for power generating stations were the result of considering experienced life spans of similar generating units, the age of surviving units, general operating characteristics of the units, major refurbishing, and discussions with management personnel concerning the probable long-term outlook for the units.

The life span estimate for the coal-fired, base-load units is 55 years, which is at the upper end of the typical range of life spans for such units. The 55-year life span estimate applies to Cholla Units 1-3. The other coal-fired, base-load units are located on Navajo land, i.e., Four Corners Units 1-5, and Navajo Units 1-3, and the company has a lease agreement with the Navajo Nation to operate the plants for a specified period. A 53-year life span was estimated for Four Corners Units 1-3. The probable retirement dates for Four Corners Units 4-5 and Navajo 1-3 were set to coincide with the lease expiration dates for each respective location. The lease expiration dates for Four Corners and Navajo occur in 2031 and 2026, respectively. For the gas-fired, peak-load steam production units at Ocotillo, Saguaro, and Yucca, a 60-year life span has been estimated based on discussions with management and the favorable operating and maintenance practices that exist at these plants.

The life span for nuclear production units is based on the length of the operating license as established by the Nuclear Regulatory Commission. The Company's operating license is valid for 40 years from the date of issue. Therefore, the life spans estimated for

Palo Verde Units 1-3 are slightly less than 40 years since the units did not begin commercial operation until several months after the operating license was issued.

The life span for the steam generators at Palo Verde is based on specific replacement plans set forth by APS. The development of cracks in the steam generator tubes is the reason for the replacement of the units. Such cracking has been experienced in the steam generator tubes of other electric utilities and has resulted in the replacement of steam generators. Tubes can be plugged for a period of time, but ultimately the steam generator must be replaced. The company's replacement plans for the steam generator tubes are as follows: Unit 2 in 2003; Unit 1 in 2005; Unit 3 in 2007.

The life span estimate for the West Phoenix combined cycle units 1-3 has been extended to 2031 based on the significant refurbishment of the units that occurred in 2001 and the outlook of engineering management. In the previous study, the plant investment related to the West Phoenix combined cycle units 1-3 plant was depreciated over the term of the lease. The length of the lease was 25 years, ending in 2001. A life span of 45 years was estimated for the simple cycle combustion turbines at Douglas, Ocotillo, Saguaro, West Phoenix and Yucca. A 45-year life span estimate is at the upper end of the range typically used for such units but the 45-year life span is consistent with management's outlook.

Common plant for each steam, nuclear and other production station was life-spanned to the same date as the unit with the latest probable retirement year. A summary of the year in service, life span and probable retirement year for each power production unit follows:

<u>Depreciable Group</u>	<u>Year in Service</u>	<u>Probable Retirement Year</u>	<u>Life Span</u>
<u>STEAM PRODUCTION PLANT</u>			
Chollo Unit 1	1962	2017	55
Chollo Unit 2	1978	2033	55
Chollo Unit 3	1980	2035	55
Chollo Common	1978	2035	57
Four Corners Units 1-3	1963	2016	53
Four Corners Units 4-5	1969	2031	62
Navajo Units 1-3	1975	2026	51
Ocotillo Units 1-2	1960	2020	60
Saguaro Units 1-3	1954	2014	60
Yucca Unit 1	1959	2016	57
<u>NUCLEAR PRODUCTION PLANT</u>			
Palo Verde Unit 1	1986	2024	40
Palo Verde Unit 2	1986	2025	40
Palo Verde Unit 3	1988	2027	40
Palo Verde Water Reclamation	1986	2027	40
Palo Verde Common	1986	2027	40
<u>HYDRAULIC PRODUCTION PLANT</u>			
Childs	1909	2004	95
Irving	1916	2004	88
<u>OTHER PRODUCTION PLANT</u>			
Douglas	1972	2017	45
Ocotillo Turbines 1-2	1972	2017	45
Saguaro Turbines 1-2	1972	2017	45
West Phoenix Turbines 1-2	1972	2017	45
West Phoenix Combined Cycle 1-3	1976	2031	55
Yucca Turbines 1-4	1971	2016	45

The estimated retirement dates should not be interpreted as commitments to retire these plants on these dates, but rather, as reasonable estimates subject to modification in the future as circumstances dictate.

Amortization accounting is proposed for 7 General Plant accounts that represent numerous units of property, but a small portion of the depreciable electric plant in service. These accounts represent 1 percent of the total depreciable electric plant studied. A discussion of the basis for the amortization periods is presented in the section "Calculation of Annual and Accrued Amortization."

Generally, the survivor curve estimates for the remaining 15 accounts, which comprise 11 percent of the total depreciable original cost, were based on judgments which considered the nature of the plant and equipment, reviews of available historical retirement data, and a general knowledge of the service lives for similar equipment in other electric companies.

Salvage Analysis

The estimates of net salvage were based in part on historical data compiled for the years 1980 through 2001. Cost of removal and salvage were expressed as percents of the original cost of plant retired, both on annual and three-year moving average bases. The most recent five-year average also was calculated for consideration. The net salvage estimates are expressed as a percent of the original cost of plant retired.

Net Salvage Considerations

The survivor curve and net salvage estimates were based on judgment which considered a number of factors. The primary factors were the analyses of historical data; information relative to APS policies and outlook as determined during the field trip and other discussions with management; a general knowledge of the electric industry; and the service life characteristics and net salvage percents of other electric companies.

Generally, conclusions were formed separately for the cost of removal and gross salvage components of net salvage and then were consolidated into an estimate of net salvage. This procedure encourages observation of separate trends in the several components.

Many transmission and distribution plant accounts experience high levels of reuse salvage, i.e., materials returned to stores, during the early portion of a group's life cycle. Items such as transformers that become inadequate at one location can be reused at another, if they are in good condition. However, as the group ages, the ability to reuse materials decreases and ultimately ceases.

Analyses of gross salvage for accounts which experience reuse require interpretation in order to develop an estimate of gross salvage that applies to the entire life cycle. As a result of inflation, most of the original cost retired relates to relatively young plant which can be reused. Thus, the analysis of gross salvage provides an indication that only would be correct if such plant was capable of being reused throughout its life cycle.

The table on page II-32 sets forth the adjustment procedure used for certain APS transmission and distribution plant accounts which experience reuse. The adjustment process consists of estimating the age beyond which plant will not be reused, determining the percent surviving at that age and weighting the experienced gross salvage indication

by 100 percent less the percent surviving, the percent retired. The resultant adjusted gross salvage better represents the level of gross salvage that will be experienced by the group during its entire life cycle.

The net salvage estimate for steam production plant reflects estimated decommissioning costs associated with each generating station. The decommissioning cost estimate for each unit was based on the results of a least-squares regression analysis of decommissioning cost data for power plants operated by other electric utilities. The regression analysis correlated the decommissioning costs experienced and estimated by other electric utilities with the size of the generating station, in megawatts (MW). The regression equation determines values for the dependent variable, i.e., decommissioning costs, at every given value for the independent variable, i.e., MW. The estimated decommissioning cost for each of the Company's generating stations was determined through the application of the regression equation to the MW values of each unit. The estimated decommissioning costs were escalated to a future price level coinciding with the year the plants are to be retired. The resultant estimated decommissioning costs were then expressed as a percent of the original cost of the plant in service as of December 31, 2002.

ARIZONA PUBLIC SERVICE COMPANY

Table A. Development of Adjusted Net Salvage Percent for Accounts Which Experience High Levels of Reuse Salvage

Account	Period	Retirements	Cost of Removal		Gross Salvage		Net Salvage		Reuse Factor	Adjusted Gross Salvage		Adjusted Net Salvage		Estimated Net Salvage Percent	
			Amount	Pct	Amount	Pct	Amount	Pct		Amount	Pct	Amount	Pct	Amount	Percent
353	'80-01	22,385,319	2,047,921	9	4,685,218	21	2,637,297	12	40	1,874,087	8	(173,834)	-1		
353	'97-01	1,321,957	200,866	15	353,895	27	153,029	12	40	141,558	11	(59,308)	-4		0
354-356	'80-01	20,137,049	11,824,572	59	13,689,830	68	1,865,258	9	30	4,106,949	20	(7,717,623)	-38		
354-356	'97-01	1,077,982	643,833	60	856,998	80	213,165	20	30	257,099	24	(386,734)	-36		-35
362	'80-01	24,590,679	3,610,820	15	12,810,742	52	9,199,922	37	40	5,124,297	21	1,513,477	6		
362	'97-01	1,551,737	274,741	18	1,483,317	96	1,208,576	78	40	593,327	38	318,586	21		0
364-365	'80-01	90,294,518	27,820,673	31	41,824,306	46	14,003,633	16	40	16,729,722	19	(11,090,951)	-12		
364-365	'97-01	7,753,251	983,660	13	1,940,863	25	957,203	12	40	776,345	10	(207,315)	-3		-10
368	'80-01	38,451,935	4,288,943	11	6,803,533	18	2,514,590	7	50	3,401,767	9	(887,176)	-2		
368	'97-01	2,398,678	2,038	0	167,932	7	165,894	7	50	83,966	4	81,928	3		-5
373	'80-01	6,458,603	1,893,184	29	2,183,479	34	290,295	4	50	1,091,740	17	(801,444)	-12		
373	'97-01	254,972	27,594	11	52,302	21	24,708	10	50	26,151	10	(1,443)	-1		-20

A graph and a tabulation which compare the regression equation and the decommissioning cost per MW are presented on pages 147 through 149 of Appendix B. The application of the regression equation values to specific APS units is presented on pages 150 and 151.

The net salvage estimate for the Palo Verde steam generators is based on an engineering estimate of approximately \$113 million per unit to replace the steam generators. Removal cost represents 12 percent of this cost and the APS share is 29.1%. Thus, a removal cost of approximately \$4 million per unit, \$12 million in total, is forecast for the Palo Verde steam generators. Disposal costs related to the steam generators are included in the decommissioning reserve and are not included in the above cost of removal estimate. The estimated removal cost represents 17 percent of the original cost of the steam generators.

Analyses of historical cost of removal and salvage data follow the tables listing the application and development of the decommissioning cost regression equation in Appendix B.

CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

Group Depreciation Procedures. A group procedure for depreciation is appropriate when considering more than a single item of property. Normally, the items within a group do not have identical service lives, but have lives that are dispersed over a range of time. In the average service life procedure, the rate of annual depreciation is based on the average life or average remaining life of the group, and this rate is applied to the surviving balances of the group's cost. A characteristic of this procedure is that the cost of plant retired prior to average life is not fully recouped at the time of retirement, whereas the cost

of plant retired subsequent to average life is more than fully recouped. Over the entire life cycle, the portion of cost not recouped prior to average life is balanced by the cost recouped subsequent to average life.

Remaining Life Annual Accruals. For calculating remaining life accrual rates as of December 31, 2002, the estimated book depreciation reserve for each plant account is allocated among vintages in proportion to the calculated accrued depreciation for the account. Explanations of remaining life accruals and accrued depreciation calculated by the average service life procedure follow. The detailed depreciation calculations are set forth in Appendix C of the report.

Average Service Life Procedure. In the average service life procedure, the remaining life annual accrual for each vintage is determined by dividing future book accruals (original cost less book reserve) by the average remaining life of the vintage. The average remaining life is a directly-weighted average derived from the estimated future survivor curve in accordance with the average service life procedure.

The calculated accrued depreciation for each depreciable property group represents that portion of the depreciable cost of the group which would not be allocated to expense through future whole life depreciation accruals if current forecasts of life characteristics are used as the basis for such accruals. The accrued depreciation calculation consists of applying an appropriate ratio to the surviving original cost of each vintage of each account, based upon the attained age and service life. The straight line accrued depreciation ratios are calculated as follows for the average service life procedure:

$$\text{Ratio} = 1 - \frac{\text{Average Remaining Life}}{\text{Average Service Life}}$$

CALCULATION OF ANNUAL AND ACCRUED AMORTIZATION

Amortization is the gradual extinguishment of an amount in an account by distributing such amount over a fixed period, over the life of the asset or liability to which it applies, or over the period during which it is anticipated the benefit will be realized. Normally, the distribution of the amount is in equal amounts to each year of the amortization period.

The calculation of annual and accrued amortization requires the selection of an amortization period. The amortization periods used in this report were based on judgment which incorporated a consideration of the period during which the assets will render most of their service, the amortization period and service lives used by other utilities, and the service life estimates previously used for the asset under depreciation accounting.

Amortization accounting is proposed for certain General Plant accounts that represent numerous units of property, but a very small portion of depreciable electric plant in service. The accounts and their amortization periods are as follows:

	<u>Account</u>	<u>Amortization Period, Years</u>
391.0	Furniture and Equipment	20
391.1	PC Equipment	5
391.2	Office Equipment	10
393	Stores Equipment	20
394	Shop Equipment	20
395	Laboratory and Testing Equipment	15
398	Miscellaneous Equipment	20

For calculating annual amortization amounts as of December 31, 2002, the book reserve for each plant account or subaccount is set equal to the calculated accrued amortization. The calculated accrued amortization is equal to the original cost multiplied by the ratio of the vintage's age to its amortization period. The annual amortization amount

is determined by dividing the original cost by the amortization period of amortization for vintages within the amortization period. In addition, APS proposes to amortize the difference between the book reserve and the calculated accrued amortization over a three year period for the general plant accounts subject to amortization accounting.

SCE Transmission Line. The annual and accrued depreciation related to the original cost of the transmission line from the Four Corners Power Plant to the interconnection with Southern California Edison (SCE) are based on the rate of 3.25 percent set forth in the agreement between APS and SCE and the age of the line. The annual rate of 3.25 percent is reasonable for this line and consistent with the estimates made for the remainder of the Company's transmission lines.

PART III. RESULTS OF STUDY

PART III. RESULTS OF STUDY

QUALIFICATION OF RESULTS

The estimates of survivor curves and net salvage and the determination of remaining life depreciation accrual rates are the principal results of the study. Continued surveillance and periodic revisions are normally required to maintain continued use of appropriate annual depreciation accrual rates. An assumption that accrual rates can remain unchanged over a long period of time implies a disregard for the inherent variability in service lives and salvage and for the change of the composition of property in service. The annual accrual rates and the accrued depreciation were calculated in accordance with the straight line method, average service life procedure using the remaining life technique based on estimates which reflect considerations of current historical evidence and expected future conditions.

The calculated accrued depreciation represents that portion of the depreciable cost which will not be allocated to future annual expense through depreciation accruals, if current forecasts of service life and salvage materialize and are used as a basis for straight line average service life depreciation accounting.

DESCRIPTION OF STATISTICAL SUPPORT

The service life and salvage estimates were based on judgment which incorporated statistical analyses of retirement data, discussions with management and consideration of estimates made for other electric utility companies. The results of the statistical analyses of service life are presented in Appendix A.

The estimated survivor curves for each account are presented in graphical form. The charts depict the estimated smooth survivor curve and original survivor curve(s), when

applicable, related to each specific group. For groups where the original survivor curve was plotted, the calculation of the original life table is also presented.

The analyses of salvage data are presented in Appendix B titled, "Net Salvage Statistics." The tabulations present annual cost of removal and salvage data, three-year moving averages and the most recent five-year average. Data are shown in dollars and as percentages of original costs retired.

DESCRIPTION OF DEPRECIATION TABULATIONS

A summary of the results of the study, as applied to the original cost of electric plant at December 31, 2002, is presented in Schedule 1 on pages III-4 through III-23 of this report. Schedule 1 sets forth, by depreciable category, the estimated survivor curve, net salvage, original cost, book depreciation reserve at December 31, 2002, future book accruals, calculated annual accrual amount and rate, and composite remaining life for utility plant.

The tables of the calculated annual and accrued depreciation are presented in account sequence in Appendix C. The tables indicate the estimated survivor curve and salvage percent for the account and set forth for each installation year the original cost, the calculated annual accrual rate and amount, and the calculated accrued depreciation factor and amount.

ARIZONA PUBLIC SERVICE COMPANY

**Schedule 1. Summary of Service Life and Net Salvage Estimates and Calculated Remaining Life Annual Accruals
Related to Electric Plant at December 31, 2002**

Depreciable Group (1)	Probable Retirement Year (2)	Estimated Survivor Curve (3)	Net Salvage Percent (4)	Original Cost at 12/31/02 (5)	Book Accumulated Depreciation (6)	Future Accruals (7)	Composite Remaining Life (8)	Calculated Annual Accrual	
								Amount (9)	Rate (10)=(9)/(5)
PLANT IN SERVICE									
311 STEAM PRODUCTION PLANT									
Structures and Improvements									
Cholla Unit 1	06-2017	75 - S1.5	(20)	2,144,789	1,964,146	609,602	14.0	43,523	2.03
Cholla Unit 2	06-2033	75 - S1.5	(20)	5,022,179	2,346,306	3,680,309	29.0	126,743	2.52
Cholla Unit 3	06-2035	75 - S1.5	(20)	9,583,277	6,113,726	5,386,207	29.9	180,314	1.88
Cholla Common	06-2035	75 - S1.5	(20)	36,234,550	22,949,841	20,531,618	29.9	685,872	1.89
Four Corners Units 1-3	06-2016	75 - S1.5	(20)	15,972,927	7,395,910	11,771,602	13.3	885,732	5.55
Four Corners Units 4-5	06-2031	75 - S1.5	(20)	9,195,585	5,253,259	5,781,443	26.8	216,098	2.35
Four Corners Common	06-2031	75 - S1.5	(20)	3,946,871	2,790,814	1,945,433	26.8	72,563	1.84
Navajo Units 1-3	06-2026	75 - S1.5	(20)	27,152,517	11,359,467	21,223,557	22.8	929,321	3.42
Ocotillo Units 1-2	06-2020	75 - S1.5	(20)	3,787,972	1,882,068	2,663,500	17.1	155,535	4.11
Saguaro Units 1-2	06-2014	75 - S1.5	(20)	2,446,832	2,011,377	924,823	11.3	81,704	3.34
Yucca Unit 1	12-2016	75 - S1.5	(20)	462,567	471,080	84,000	13.1	6,405	1.38
Total Account 311				115,950,066	64,537,994	74,602,094		3,383,810	2.92
312 Boiler Plant Equipment									
Cholla Unit 1	06-2017	48 - L2	(20)	26,431,681	17,353,280	14,364,742	13.4	1,074,426	4.06
Cholla Unit 2	06-2033	48 - L2	(20)	140,612,492	93,979,314	74,755,676	22.0	3,393,069	2.41
Cholla Unit 3	06-2035	48 - L2	(20)	100,448,965	63,309,215	57,229,546	22.9	2,500,521	2.49
Cholla Common	06-2035	48 - L2	(20)	22,626,051	11,951,401	15,199,859	24.8	613,196	2.71
Four Corners Units 1-3	06-2016	48 - L2	(20)	197,139,757	90,637,620	145,930,090	12.7	11,533,490	5.85
Four Corners Units 4-5	06-2031	48 - L2	(20)	111,591,873	60,671,520	73,238,729	22.1	3,320,980	2.98
Four Corners Common	06-2031	48 - L2	(20)	3,290,391	2,787,122	1,161,347	22.8	50,863	1.55
Navajo Units 1-3	06-2026	48 - L2	(20)	149,350,243	65,220,188	114,000,103	20.6	5,528,022	3.70
Ocotillo Units 1-2	06-2020	48 - L2	(20)	24,152,351	18,891,592	10,091,228	15.2	665,415	2.76
Saguaro Units 1-2	06-2014	48 - L2	(20)	24,387,712	17,510,312	11,754,943	11.1	1,062,280	4.36
Total Account 312				800,031,516	442,311,564	517,726,263		29,742,262	3.72
314 Turbogenerator Units									
Cholla Unit 1	06-2017	65 - R2	(20)	10,417,373	8,187,222	4,313,626	14.0	307,127	2.95
Cholla Unit 2	06-2033	65 - R2	(20)	28,551,889	18,457,272	15,804,995	27.5	574,578	2.01
Cholla Unit 3	06-2035	65 - R2	(20)	39,626,197	19,942,381	27,609,055	29.7	929,156	2.34
Cholla Common	06-2035	65 - R2	(20)	631,278	389,822	367,711	29.0	12,687	2.01
Four Corners Units 1-3	06-2016	65 - R2	(20)	36,412,926	24,997,649	18,697,862	13.1	1,427,354	3.92
Four Corners Units 4-5	06-2031	65 - R2	(20)	14,488,238	8,049,950	9,335,936	26.3	355,319	2.45
Four Corners Common	06-2031	65 - R2	(20)	1,726,164	1,965,225	106,172	23.3	4,559	0.26

ARIZONA PUBLIC SERVICE COMPANY

**Schedule 1. Summary of Service Life and Net Salvage Estimates and Calculated Remaining Life Annual Accruals
Related to Electric Plant at December 31, 2002**

Depreciable Group (1)	Probable Retirement Year (2)	Estimated Survivor Curve (3)	Net Salvage Percent (4)	Original Cost at 12/31/02 (5)	Book Accumulated Depreciation (6)	Future Accruals (7)	Composite Remaining Life (8)	Calculated Annual Accrual	
								Amount (9)	Rate (10)=(9)/(5)
315 Accessory Electric Equipment	Navajo Units 1-3	06-2026	65 - R2	24,387,110	15,363,242	13,901,288	22.0	632,931	2.60
	Ocotillo Units 1-2	06-2020	65 - R2	15,517,601	13,579,702	5,041,420	16.8	300,851	1.94
	Saguaro Units 1-2	06-2014	65 - R2	16,259,698	12,946,682	6,564,957	11.2	588,188	3.62
	Total Account 314			188,018,474	123,879,147	101,743,022		5,132,750	2.73
315 Accessory Electric Equipment	Cholla Unit 1	06-2017	60 - R2.5	4,756,906	3,537,479	2,170,809	13.9	156,073	3.28
	Cholla Unit 2	06-2033	60 - R2.5	42,235,618	29,787,215	20,895,527	26.8	778,409	1.84
	Cholla Unit 3	06-2035	60 - R2.5	29,917,206	18,952,154	16,948,493	28.6	591,676	1.98
	Cholla Common	06-2035	60 - R2.5	4,476,001	2,804,488	2,566,712	28.7	89,341	2.00
	Four Corners Units 1-3	06-2016	60 - R2.5	16,353,282	6,735,295	12,888,643	13.2	978,802	5.99
	Four Corners Units 4-5	06-2031	60 - R2.5	9,183,206	5,249,818	5,770,029	25.9	222,550	2.42
	Four Corners Common	06-2031	60 - R2.5	2,596,719	3,017,438	98,625	21.9	4,503	0.17
	Navajo Units 1-3	06-2026	60 - R2.5	20,226,194	12,812,227	11,459,205	22.0	521,434	2.58
	Ocotillo Units 1-2	06-2020	60 - R2.5	2,407,622	2,349,290	539,855	16.3	33,220	1.38
	Saguaro Units 1-2	06-2014	60 - R2.5	2,654,661	2,598,693	586,901	11.2	52,354	1.97
	Total Account 315			134,807,415	87,844,097	73,924,799		3,428,362	2.54
316 Miscellaneous Power Plant Equipment	Cholla Unit 1	06-2017	40 - R2	2,315,189	849,777	1,928,453	13.5	142,907	6.17
	Cholla Unit 2	06-2033	40 - R2	4,846,431	2,942,292	2,873,425	22.1	129,898	2.68
	Cholla Unit 3	06-2035	40 - R2	4,138,531	2,218,283	2,747,953	23.8	115,595	2.79
	Cholla Common	06-2035	40 - R2	7,096,069	2,519,563	5,995,721	25.8	232,179	3.27
	Four Corners Units 1-3	06-2016	40 - R2	4,330,612	557,644	4,639,090	13.1	354,982	8.20
	Four Corners Units 4-5	06-2031	40 - R2	3,304,340	1,499,998	2,465,211	23.0	107,103	3.24
	Four Corners Common	06-2031	40 - R2	8,133,224	3,516,915	6,242,954	23.2	269,374	3.31
	Navajo Units 1-3	06-2026	40 - R2	11,805,250	5,178,470	8,987,830	20.2	444,171	3.76
	Ocotillo Units 1-2	06-2020	40 - R2	3,711,192	1,047,634	3,405,795	16.2	210,098	5.66
	Saguaro Units 1-2	06-2014	40 - R2	3,191,024	1,012,665	2,816,563	10.9	257,730	8.08
	Yucca Unit 1	12-2016	40 - R2	452,868	353,040	190,401	12.2	15,667	3.46
	Total Account 316			53,324,730	21,696,281	42,293,396		2,279,704	4.28
	TOTAL STEAM PRODUCTION PLANT			1,292,132,201	740,269,083	810,289,574		43,966,888	

ARIZONA PUBLIC SERVICE COMPANY

**Schedule 1. Summary of Service Life and Net Salvage Estimates and Calculated Remaining Life Annual Accruals
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	Depreciable Group (1)	Probable Retirement Year (2)	Estimated Survivor Curve (3)	Net Salvage Percent (4)	Original Cost at 12/31/02 (5)	Book Accumulated Depreciation (6)	Future Accruals (7)	Composite Remaining Life (8)	Calculated Annual Accrual	
									Amount (9)	Rate (10)=(9)/(5)
NUCLEAR PRODUCTION PLANT										
321	Structures and Improvements									
	Palo Verde Unit 1	12-2024	65 - R2.5	0	161,039,432	68,224,238	92,815,194	21.2	4,384,691	2.72
	Palo Verde Unit 2	12-2025	65 - R2.5	0	88,415,270	37,058,726	51,356,544	22.0	2,331,149	2.64
	Palo Verde Unit 3	03-2027	65 - R2.5	0	159,591,077	62,020,595	97,570,482	23.3	4,195,723	2.63
	Palo Verde Water Reclamation	03-2027	65 - R2.5	0	125,593,913	50,775,392	74,818,521	23.2	3,225,203	2.57
	Palo Verde Common	03-2027	65 - R2.5	0	98,127,309	38,045,036	60,082,273	23.2	2,586,955	2.64
	Total Account 321				632,767,001	256,123,987	376,643,014		16,723,721	2.64
322	Reactor Plant Equipment									
	Palo Verde Unit 1	12-2024	70 - R1	(2)	359,545,213	144,992,453	221,743,665	20.6	10,760,567	2.99
	Palo Verde Unit 2	12-2025	70 - R1	(2)	176,362,235	64,407,419	115,482,062	21.5	5,377,429	3.05
	Palo Verde Unit 3	03-2027	70 - R1	(2)	322,750,700	118,393,045	210,812,669	22.6	9,331,561	2.89
	Palo Verde Water Reclamation	03-2027	70 - R1	(2)	123,313	5,190	120,589	23.0	5,251	4.26
	Palo Verde Common	03-2027	70 - R1	(2)	26,449,873	9,772,755	17,206,115	22.6	760,717	2.88
	Total Account 322				885,231,334	337,570,862	565,365,100		26,235,525	2.96
322.1	Reactor Plant Equipment - Steam Generators									
	Palo Verde Unit 1	12-2005	Square	(17)	30,722,375	31,766,117	4,179,062	3.0	1,393,021	4.53
	Palo Verde Unit 2	12-2003	Square	(17)	15,870,053	17,917,124	650,838	1.0	650,838	4.10
	Palo Verde Unit 3	12-2007	Square	(17)	25,413,317	23,597,351	6,136,230	5.0	1,227,246	4.83
	Total Account 322.1				72,005,745	73,280,592	10,966,130		3,271,105	4.54
323	Turbogenerator Units									
	Palo Verde Unit 1	12-2024	60 - S0	(2)	117,808,078	50,929,473	69,234,765	19.9	3,471,147	2.95
	Palo Verde Unit 2	12-2025	60 - S0	(2)	76,754,224	30,390,765	47,898,546	20.8	2,307,463	3.01
	Palo Verde Unit 3	03-2027	60 - S0	(2)	142,895,088	55,717,208	90,035,783	21.8	4,123,870	2.89
	Palo Verde Water Reclamation	03-2027	60 - S0	(2)	217,707	54,310	167,751	22.0	7,629	3.50
	Palo Verde Common	03-2027	60 - S0	(2)	1,223,879	(131,408)	1,379,764	22.2	62,190	5.08
	Total Account 323				338,898,976	136,960,348	208,716,609		9,972,299	2.94
324	Accessory Electric Equipment									
	Palo Verde Unit 1	12-2024	45 - R3	(2)	115,495,170	51,830,648	65,974,427	20.0	3,292,508	2.85
	Palo Verde Unit 2	12-2025	45 - R3	(2)	50,119,388	20,346,865	30,774,911	20.9	1,470,132	2.93

ARIZONA PUBLIC SERVICE COMPANY

**Schedule 1. Summary of Service Life and Net Salvage Estimates and Calculated Remaining Life Annual Accruals
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Depreciable Group (1)	Probable Retirement Year (2)	Estimated Survivor Curve (3)	Net Salvage Percent (4)	Original Cost at 12/31/02 (5)	Book Accumulated Depreciation (6)	Future Accruals (7)	Composite Remaining Life (8)	Amount (9)	Calculated Annual Accrual Rate (10)=(9)/(5)
Palo Verde Unit 3	03-2027	45 - R3	(2)	89,143,623	36,276,331	54,650,164	22.1	2,475,838	2.78
Palo Verde Common	03-2027	45 - R3	(2)	17,918,193	7,373,717	10,902,840	22.0	495,396	2.76
Total Account 324				272,676,374	115,827,561	162,302,342		7,733,874	2.84
325 Miscellaneous Power Plant Equipment									
Palo Verde Unit 1	12-2024	35 - R0.5	(2)	29,671,405	17,609,436	12,655,399	17.7	716,211	2.41
Palo Verde Unit 2	12-2025	35 - R0.5	(2)	26,389,406	13,408,579	13,508,616	18.7	722,783	2.74
Palo Verde Unit 3	03-2027	35 - R0.5	(2)	27,284,046	15,083,087	12,746,639	19.2	663,956	2.43
Palo Verde Water Reclamation	03-2027	35 - R0.5	(2)	88,819	46,552	44,043	19.5	2,261	2.55
Palo Verde Common	03-2027	35 - R0.5	(2)	48,459,510	21,228,993	28,199,708	19.4	1,453,065	3.00
Total Account 325				131,893,186	67,376,647	67,154,405		3,558,276	2.70
TOTAL NUCLEAR PRODUCTION PLANT				2,333,472,616	987,139,997	1,391,147,600		67,494,800	
HYDRO PRODUCTION PLANT									
331 Structures and Improvements	12-2004	Square	0	100,878	100,878	0	0.0	0	0.00
332 Reservoirs, Dams and Waterways	12-2004	Square	0	991,936	1,105,086	(113,150)	0.0	0	0.00
333 Water Wheels, Turbines and Generators	12-2004	Square	0	157,196	157,196	0	0.0	0	0.00
334 Accessory Electric Equipment	12-2004	Square	0	627,611	627,611	0	0.0	0	0.00
335 Miscellaneous Power Plant Equipment	12-2004	Square	0	126,018	126,018	0	0.0	0	0.00
336 Roads, Railroads and Bridges	12-2004	Square	0	77,427	77,427	0	0.0	0	0.00
Hydro Decommissioning Costs				-	7,864,531	5,335,469 (a)	2.0	2,667,735	
TOTAL HYDRO PRODUCTION PLANT				2,081,066	10,058,747	5,222,319		2,667,735	
OTHER PRODUCTION PLANT									
341 Structures and Improvements									
Douglas CT	06-2017	80 - S1	(5)	4,562	3,417	1,373	13.9	99	2.17
Ocotillo CT 1 - 2	06-2017	80 - S1	(5)	328,749	309,919	35,268	14.5	2,439	0.74
Saguaro CT	06-2017	80 - S1	(5)	1,288,525	360,293	992,659	14.4	69,056	5.36
Solar Unit 1	12 - SQ	12 - SQ	0	375,512	237,890	137,622	3.6	38,056	10.13
West Phoenix CT 1 - 2	06-2017	80 - S1	(5)	510,951	475,096	61,403	14.2	4,328	0.85
West Phoenix Combined Cycle 1 - 3	06-2031	80 - S1	(5)	6,706,722	3,949,614	3,092,446	28.1	110,243	1.64
Yucca CT 1 - 4	06-2016	80 - S1	(5)	452,751	155,293	320,095	13.4	23,962	5.29
Total Account 341				9,667,772	5,491,522	4,640,866		248,183	2.57

ARIZONA PUBLIC SERVICE COMPANY

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								Amount (9)	Rate (10)=(9)/(5)
342 Fuel Holders, Products and Accessories									
Douglas CT	06-2017	70 - S1	(5)	137,759	73,566	71,081	14.0	5,063	3.68
Ocotillo CT 1 - 2	06-2017	70 - S1	(5)	719,859	359,329	396,523	14.0	28,225	3.92
Saguaro CT	06-2017	70 - S1	(5)	1,304,977	804,476	565,750	14.0	40,547	3.11
West Phoenix CT 1 - 2	06-2017	70 - S1	(5)	1,437,533	840,769	668,641	14.0	47,921	3.33
West Phoenix Combined Cycle 1 - 3	06-2031	70 - S1	(5)	19,343,993	2,978,088	17,333,104	27.7	624,716	3.23
Yucca CT 1 - 4	06-2016	70 - S1	(5)	3,232,217	2,710,284	683,545	12.9	52,931	1.64
Total Account 342				26,176,338	7,766,512	19,718,644		799,403	3.05
343 Prime Movers									
Douglas CT	06-2017	70 - L1.5	0	1,101,449	1,102,406	(957)	0.0	0	0.00
Ocotillo CT 1 - 2	06-2017	70 - L1.5	0	6,679,324	6,127,017	552,307	14.1	39,158	0.59
Saguaro CT	06-2017	70 - L1.5	0	8,102,651	6,441,288	1,661,363	13.8	120,086	1.48
West Phoenix CT 1 - 2	06-2017	70 - L1.5	0	8,802,636	6,428,854	2,373,782	14.2	167,290	1.90
Yucca CT 1 - 4	06-2016	70 - L1.5	0	7,920,584	8,796,851	(876,267)	0.0	0	0.00
Total Account 343				32,606,644	28,896,416	3,710,228		326,534	1.00
344 Generators and Devices									
Douglas CT	06-2017	37 - R3	0	551,765	546,431	5,334	9.7	549	0.10
Ocotillo CT 1 - 2	06-2017	37 - R3	0	6,402,044	2,369,080	4,032,964	13.6	296,448	4.63
Saguaro CT	06-2017	37 - R3	0	4,185,247	1,954,137	2,231,110	13.0	171,743	4.10
Solar Unit 1	06-2017	12 - SQ	0	6,933,081	3,041,951	3,891,130	7.8	498,118	7.18
West Phoenix CT 1 - 2	06-2017	37 - R3	0	4,115,901	2,407,953	1,707,948	12.3	138,912	3.38
West Phoenix Combined Cycle 1 - 3	06-2031	37 - R3	(2)	81,920,222	11,064,493	72,494,134	26.2	2,765,872	3.38
Yucca CT 1 - 4	06-2016	37 - R3	0	5,395,818	3,751,109	1,644,709	11.6	141,655	2.63
Total Account 344				109,504,078	25,135,154	86,007,329		4,013,297	3.66
345 Accessory Electric Equipment									
Douglas CT	06-2017	50 - S2	0	353,277	296,417	56,860	13.1	4,339	1.23
Ocotillo CT 1 - 2	06-2017	50 - S2	0	1,494,636	1,158,282	336,354	13.2	25,401	1.70
Saguaro CT	06-2017	50 - S2	0	1,715,774	1,133,530	582,244	13.4	43,562	2.54
Solar Unit 1	06-2017	12 - SQ	0	169,527	12,853	156,674	9.9	15,865	9.36

ARIZONA PUBLIC SERVICE COMPANY

**Schedule 1. Summary of Service Life and Net Salvage Estimates and Calculated Remaining Life Annual Accruals
Related to Electric Plant at December 31, 2002**

Depreciable Group (1)	Probable Retirement Year (2)	Estimated Survivor Curve (3)	Net Salvage Percent (4)	Original Cost at 12/31/02 (5)	Book Accumulated Depreciation (6)	Future Accruals (7)	Composite Remaining Life (8)	Calculated Annual Accrual		
								Amount (9)	Rate (10)=(9)/(5)	
346	Miscellaneous Power Plant Equipment									
	West Phoenix CT 1 - 2	06-2017	0	1,557,744	1,079,614	478,130	13.2	36,163	2.32	
	West Phoenix Combined Cycle 1 - 3	06-2031	0	11,925,645	3,758,130	8,167,515	27.8	293,998	2.47	
	Yucca CT 1 - 4	06-2016	0	2,166,526	1,818,547	347,979	13.0	26,820	1.24	
	Total Account 345			19,383,129	9,257,373	10,125,756		446,148	2.30	
	Miscellaneous Power Plant Equipment									
	Douglas CT	06-2017	0	40,913	29,882	11,031	13.8	798	1.95	
	Ocotillo CT 1 - 2	06-2017	0	553,173	460,255	92,918	14.0	6,650	1.20	
	Saguaro CT	06-2017	0	790,906	388,367	402,539	14.1	28,508	3.60	
	West Phoenix CT 1 - 2	06-2017	0	957,431	479,217	478,214	14.1	33,908	3.54	
TOTAL OTHER PRODUCTION PLANT	West Phoenix Combined Cycle 1 - 3	06-2031	0	2,608,877	1,714,480	894,397	26.6	33,618	1.29	
	Yucca CT 1 - 4	06-2016	0	427,175	411,833	15,342	13.2	1,166	0.27	
	Total Account 346			5,378,475	3,484,034	1,894,441		104,648	1.95	
	202,716,436				80,031,011	126,097,264		5,938,213		
	TRANSMISSION PLANT									
	352	Structures and Improvements	50 - R4	(5)	27,618,299	8,135,201	20,864,015	35.2	592,619	2.15
	352.5	Structures and Improvements - SCE 500 KV Line			409,725	296,895	235,747		13,316	3.25 (b)
	353	Station Equipment	42 - R3	0	428,736,305	173,966,733	254,769,572	31.2	8,167,649	1.91
	353.5	Station Equipment - SCE 500 KV Line			7,747,282	6,464,972	3,606,497		251,787	3.25 (b)
	354	Towers and Fixtures	60 - R3	(35)	83,464,531	39,991,439	72,685,678	38.3	1,899,472	2.28
354.5	Towers and Fixtures - SCE 500 KV Line			13,752,584	13,542,259	4,336,101		446,959	3.25 (b)	
355	Poles and Fixtures - Wood	48 - R1.5	(35)	91,126,939	33,590,493	89,430,875	38.5	2,321,504	2.55	
355.1	Poles and Fixtures - Steel	55 - R3	(15)	83,067,888	22,282,935	73,245,140	45.1	1,625,822	1.96	
355.5	Poles and Fixtures - SCE 500 KV Line			930,308	341,908	867,492		30,235	3.25 (b)	
356	Overhead Conductors and Devices	55 - R3	(35)	205,771,417	70,439,236	207,352,178	38.5	5,391,852	2.62	
356.5	Overhead Conductors and Devices - SCE 500 KV Line			22,653,515	23,670,862	5,778,708		736,239	3.25 (b)	
357	Underground Conduit	48 - S1.5	(10)	10,444,362	2,989,523	8,499,278	35.7	237,777	2.28	
358	Underground Conductors and Devices	40 - R3	(10)	18,551,254	6,336,374	14,070,005	26.3	534,608	2.88	
Total Account 346				994,274,409	402,048,830	755,741,286		22,249,839		
TOTAL TRANSMISSION PLANT										

ARIZONA PUBLIC SERVICE COMPANY

**Schedule 1. Summary of Service Life and Net Salvage Estimates and Calculated Remaining Life Annual Accruals
Related to Electric Plant at December 31, 2002**

Depreciable Group (1)	Probable Retirement Year (2)	Estimated Survivor Curve (3)	Net Salvage Percent (4)	Original Cost at 12/31/02 (5)	Book Accumulated Depreciation (6)	Future Accruals (7)	Composite Remaining Life (8)	Calculated Annual Accrual	
								Amount (9)	Rate (10)=(9)/(5)
DISTRIBUTION PLANT									
361 Structures and Improvements		45 - R2.5	(10)	25,815,042	7,749,290	20,647,256	33.1	623,356	2.41
362 Station Equipment		38 - S0	0	212,357,577	70,802,963	141,554,614	31.8	4,456,837	2.10
364 Poles, Towers and Fixtures - Wood		38 - R0.5	(10)	284,200,711	94,139,326	218,481,457	30.9	7,076,374	2.49
364.1 Poles, Towers and Fixtures - Steel		50 - R3	(5)	53,919,651	5,138,171	51,477,465	46.6	1,105,404	2.05
365 Overhead Conductors and Devices		53 - O1	(10)	218,856,780	58,922,434	181,820,025	47.7	3,810,605	1.74
366 Underground Conduit		55 - R1.5	(5)	425,723,116	51,496,065	395,513,205	49.4	8,009,076	1.88
367 Underground Conductors and Devices		29 - L1	(5)	805,505,783	227,200,974	618,580,099	22.9	27,036,316	3.36
368 Line Transformers		36 - R3	(5)	486,837,053	188,298,226	322,880,680	24.6	13,147,552	2.70
369 Services		37 - S2	(10)	242,404,812	86,204,425	180,440,873	27.9	6,463,178	2.67
370 Meters		23 - R1	0	91,330,710	36,185,262	55,145,448	13.5	4,086,660	4.47
370.1 Electronic Meters		12 - S2	0	54,691,249	11,298,055	43,393,194	8.7	4,987,610	9.12
371 Installations On Customers Premises		30 - R1	(20)	25,335,831	8,708,344	21,694,654	22.9	945,981	3.73
373 Street Lighting and Signal Systems		35 - R2	(20)	57,185,737	19,618,266	49,004,615	25.9	1,890,534	3.31
TOTAL DISTRIBUTION PLANT					865,761,801	2,300,633,585		83,639,483	
GENERAL PLANT									
390 Structures and Improvements		39 - R1	(15)	96,667,435	30,654,079	80,513,474	30.7	2,624,392	2.71
391 Office Furniture and Equipment - Furniture		20 - SQ	0	19,919,640	9,897,448	10,022,192	10.1	994,570	5.00 (c)
					0	0	3.0 (d)	0	
391.1 Office Furniture and Equipment - Pc Equip		5 - SQ	0	38,654,946	21,283,348	17,371,598	2.7	6,467,368	20.00 (c)
					(7,055,994)	7,055,994	3.0 (d)	2,351,998	
391.2 Office Furniture and Equipment - Equipment		10 - SQ	0	7,652,923	4,070,284	3,582,639	7.8	461,909	10.00 (c)
					0	0	3.0 (d)	0	
393 Stores Equipment		20 - SQ	0	1,227,371	1,142,564	84,807	2.8	29,921	5.00 (c)
					(303,976)	303,976	3.0 (d)	101,325	
394 Tools, Shop and Garage Equipment		20 - SQ	0	12,673,031	3,989,281	8,683,750	13.7	633,652	5.00 (c)
					(690,684)	690,684	3.0 (d)	230,228	
395 Laboratory Equipment		15 - SQ	0	1,350,583	1,082,162	268,421	3.6	75,200	6.67 (c)
					(38,339)	38,339	3.0 (d)	12,780	
397 Communication Equipment		19 - S1.5	0	94,309,691	36,587,109	57,722,582	12.0	4,811,742	5.10
398 Miscellaneous Equipment		20 - SQ	0	1,336,404	584,352	752,052	11.5	65,276	5.00 (c)
					62,877	(62,877)	3.0 (d)	(20,959)	
TOTAL GENERAL PLANT					101,264,511	187,027,631		18,839,402	
TOTAL DEPRECIABLE PLANT STUDIED					8,082,632,804	5,576,159,259		244,796,360	

ARIZONA PUBLIC SERVICE COMPANY

**Schedule 1. Summary of Service Life and Net Salvage Estimates and Calculated Remaining Life Annual Accruals
Related to Electric Plant at December 31, 2002**

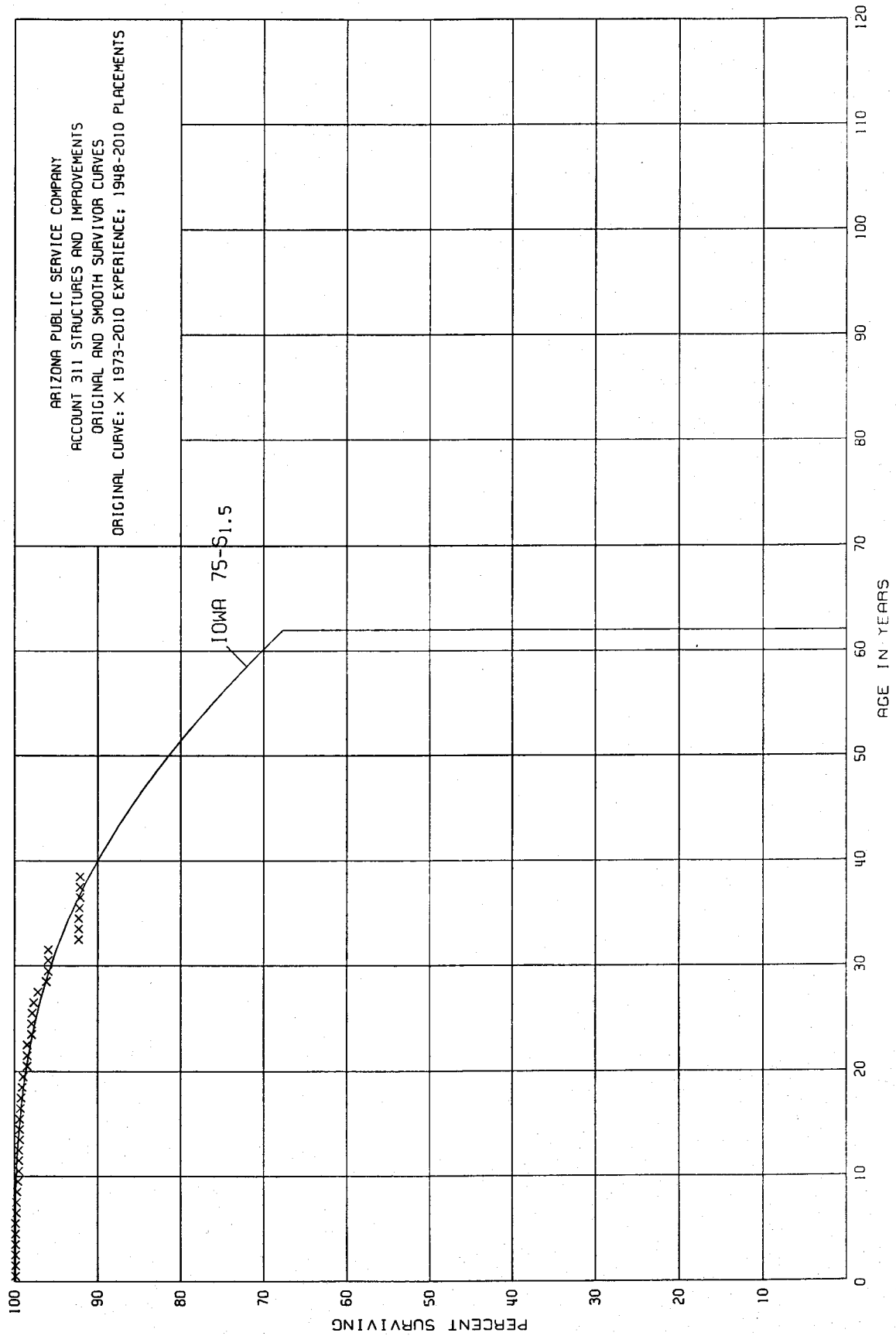
Depreciable Group (1)	Probable Retirement Year (2)	Estimated Survivor Curve (3)	Net Salvage Percent (4)	Original Cost at 12/31/02 (5)	Book Accumulated Depreciation (6)	Future Accruals (7)	Composite Remaining Life (8)	Calculated Annual Accrual Amount (9)	Rate (10)=(9)/(5)
STEAM PRODUCTION PLANT NOT STUDIED									
311	Structures and Improvements - West Phoenix Units 4 & 6			0	80,895				
312	Boiler Plant Equipment - West Phoenix Units 4 & 6			0	300,097				
312	Boiler Plant Equipment - Yucca Unit 1			425,323	441,994				
314	Turbogenerator Units - West Phoenix Units 4 & 6			0	314,512				
314	Turbogenerator Units - Yucca Unit 1			184,916	188,319				
315	Accessory Electric Equipment - West Phoenix Units 4 & 6			33,968	83,338				
315	Accessory Electric Equipment - Yucca Unit 1			182,084	185,435				
316	Misc. Power Plant Equipment-West Phoenix Units 4 & 6			17,267	0				
				843,558	1,594,590				
TOTAL STEAM PRODUCTION PLANT NOT STUDIED									
GENERAL PLANT NOT STUDIED									
392	Vehicles			28,410,886	20,605,998				
396	Power Operated Equipment			27,947,651	18,603,989				
				56,358,537	39,209,987				
TOTAL GENERAL PLANT NOT STUDIED									
OTHER PROPERTY NOT STUDIED									
<i>Intangible Plant</i>									
301	Organization			73,639					
302	Franchises and Consents			883,584					
303	Miscellaneous Intangible Plant			201,550,375					
<i>Leased Property</i>									
321	Structures and Improvements			1,633,193					
322	Reactor Plant Equipment			9,670,223					
323	Turbogenerator Units			2,705,885					
324	Accessory Electric Equipment			944,788					
325	Miscellaneous Power Plant Equipment			563,135					
361	Structures and Improvements			195,512					
368	Line Transformers			179,394					
371	Installations On Customers Premises			60,386					
390	Structures and Improvements			11,160,324					
397	Communication Equipment			245,938					
				229,866,377	120,727,768				
TOTAL OTHER PROPERTY NOT STUDIED									
				8,369,701,276	3,348,106,325				
TOTAL DEPRECIABLE PLANT IN SERVICE									

Schedule 1. Summary of Service Life and Net Salvage Estimates and Calculated Remaining Life Annual Accruals
ARIZONA PUBLIC SERVICE COMPANY
Related to Electric Plant at December 31, 2002

Depreciable Group (1)		Probable Retirement Year (2)	Estimated Survivor Curve (3)	Net Salvage Percent (4)	Original Cost at 12/31/02 (5)	Book Accumulated Depreciation (6)	Future Accruals (7)	Composite Remaining Life (8)	Calculated Annual Accrual Amount (9)	Rate (10)=(9)/(5)
NONDEPRECIABLE PLANT										
310	Land and Land Rights					3,295,268				
320	Land and Land Rights					3,399,728				
330	Land and Land Rights					64,500				
340	Land and Land Rights					28,192				
350	Land and Land Rights					50,808,274				
360	Land and Land Rights					26,755,119				
389	Land and Land Rights					7,327,436				
	TOTAL NONDEPRECIABLE					91,678,517				
	TOTAL PLANT IN SERVICE					8,461,379,793				

(a) Future Accruals Related to Hydro Decommissioning are Equal to the Expected Decommissioning Costs of 13.2 Million less the Book Accumulated Depreciation
(b) Assets Related to the 500 KV SCE Transmission Line are Depreciated at a 3.25 Rate
(c) Amortization Rate Applicable to those Vintages Within the Amortization Period
(d) Reserve Variances Related to General Plant Amortization Accounts are Amortized Over 3 Years

APPENDIX A
SERVICE LIFE STATISTICS



ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1948-2010

EXPERIENCE BAND 1973-2010

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	145,725,484		0.0000	1.0000	100.00
0.5	142,882,984		0.0000	1.0000	100.00
1.5	142,023,381		0.0000	1.0000	100.00
2.5	142,279,737	2,000	0.0000	1.0000	100.00
3.5	145,020,116	208,633	0.0014	0.9986	100.00
4.5	137,896,820	9,116	0.0001	0.9999	99.86
5.5	137,585,004	30,752	0.0002	0.9998	99.85
6.5	136,542,207	51,000	0.0004	0.9996	99.83
7.5	121,786,139	145,270	0.0012	0.9988	99.79
8.5	121,139,290	46,511	0.0004	0.9996	99.67
9.5	125,269,039	158,367	0.0013	0.9987	99.63
10.5	122,339,175	4,570	0.0000	1.0000	99.50
11.5	119,151,627	18,177	0.0002	0.9998	99.50
12.5	118,113,243	93,298	0.0008	0.9992	99.48
13.5	95,144,116	2,086	0.0000	1.0000	99.40
14.5	93,219,009	10,591	0.0001	0.9999	99.40
15.5	92,401,512	52,130	0.0006	0.9994	99.39
16.5	90,387,953	106,376	0.0012	0.9988	99.33
17.5	87,845,596	135,412	0.0015	0.9985	99.21
18.5	88,150,041	33,171	0.0004	0.9996	99.06
19.5	88,306,458	445,435	0.0050	0.9950	99.02
20.5	87,759,593	45,000	0.0005	0.9995	98.52
21.5	86,866,471	4,872	0.0001	0.9999	98.47
22.5	84,636,192	402,897	0.0048	0.9952	98.46
23.5	83,501,354	15,838	0.0002	0.9998	97.99
24.5	80,771,367	69,176	0.0009	0.9991	97.97
25.5	77,613,845	176,186	0.0023	0.9977	97.88
26.5	70,059,969	309,797	0.0044	0.9956	97.65
27.5	67,474,975	738,454	0.0109	0.9891	97.22
28.5	59,535,155	89,205	0.0015	0.9985	96.16
29.5	51,622,997		0.0000	1.0000	96.02
30.5	39,527,686	28,556	0.0007	0.9993	96.02
31.5	37,318,208	1,417,795	0.0380	0.9620	95.95
32.5	19,270,167		0.0000	1.0000	92.30
33.5	18,156,622	8,249	0.0005	0.9995	92.30
34.5	13,569,377	9,334	0.0007	0.9993	92.25
35.5	10,415,064	9,089	0.0009	0.9991	92.19
36.5	7,772,495		0.0000	1.0000	92.11
37.5	7,728,961		0.0000	1.0000	92.11
38.5	7,440,782	295,610	0.0397	0.9603	92.11

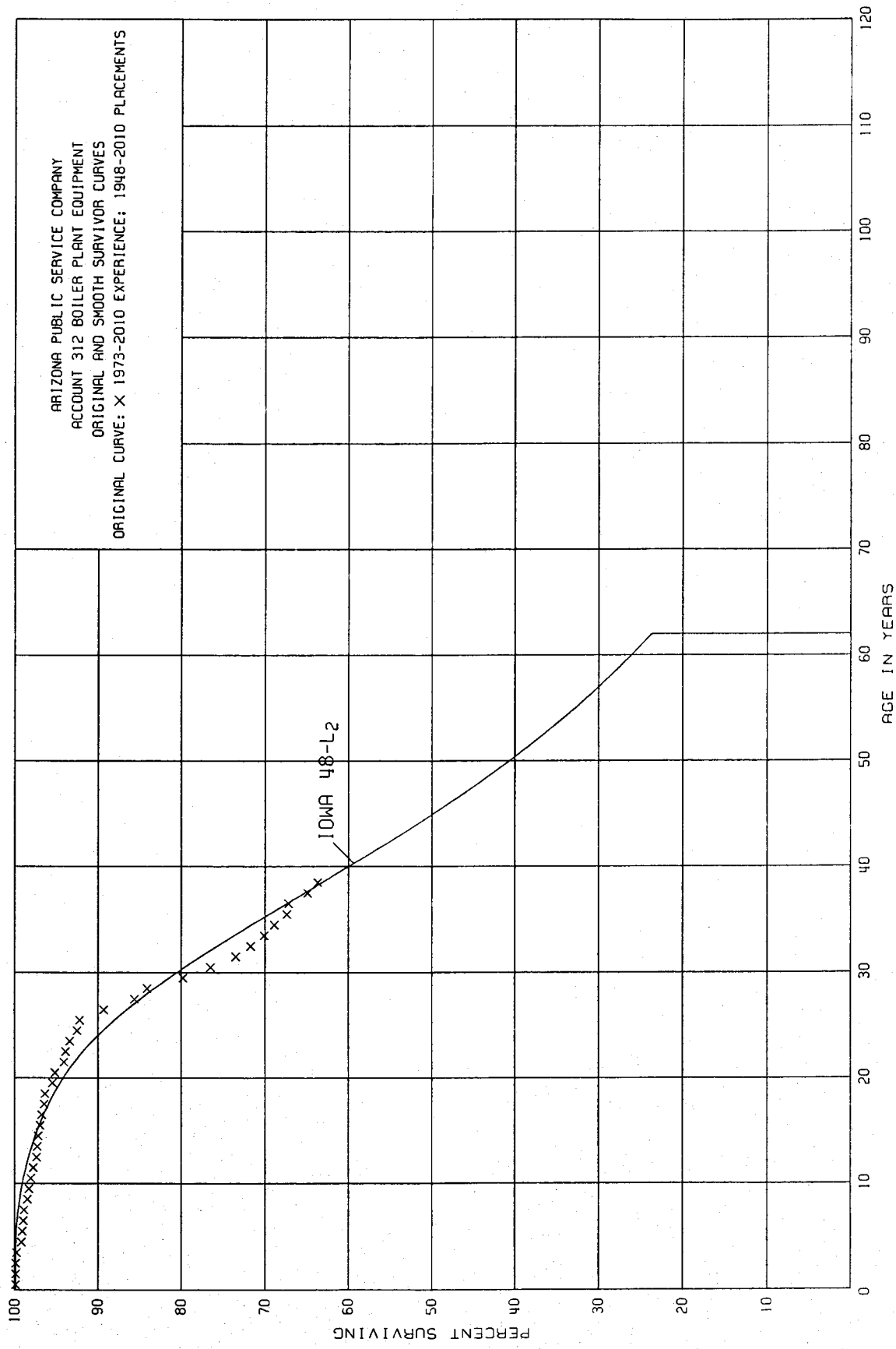
ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1948-2010

EXPERIENCE BAND 1973-2010

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	6,520,666	991,626	0.1521	0.8479	88.45
40.5	5,157,896	1,302,651	0.2526	0.7474	75.00
41.5	3,610,024	84,566	0.0234	0.9766	56.06
42.5	3,535,087		0.0000	1.0000	54.75
43.5	3,512,249		0.0000	1.0000	54.75
44.5	3,492,656	344,085	0.0985	0.9015	54.75
45.5	2,986,714	879,481	0.2945	0.7055	49.36
46.5	1,496,464		0.0000	1.0000	34.82
47.5	1,412,689	160,536	0.1136	0.8864	34.82
48.5	2,193,457		0.0000	1.0000	30.86
49.5	2,102,098		0.0000	1.0000	30.86
50.5	2,028,068		0.0000	1.0000	30.86
51.5	1,933,964		0.0000	1.0000	30.86
52.5	1,918,057		0.0000	1.0000	30.86
53.5	2,528,466		0.0000	1.0000	30.86
54.5	2,527,583		0.0000	1.0000	30.86
55.5	2,527,583		0.0000	1.0000	30.86
56.5	1,669,625		0.0000	1.0000	30.86
57.5	620,980		0.0000	1.0000	30.86
58.5	620,980		0.0000	1.0000	30.86
59.5	620,980		0.0000	1.0000	30.86
60.5	620,980		0.0000	1.0000	30.86
61.5	620,980		0.0000	1.0000	30.86
62.5					30.86



ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 312 BOILER PLANT EQUIPMENT
ORIGINAL LIFE TABLE

PLACEMENT BAND 1948-2010

EXPERIENCE BAND 1973-2010

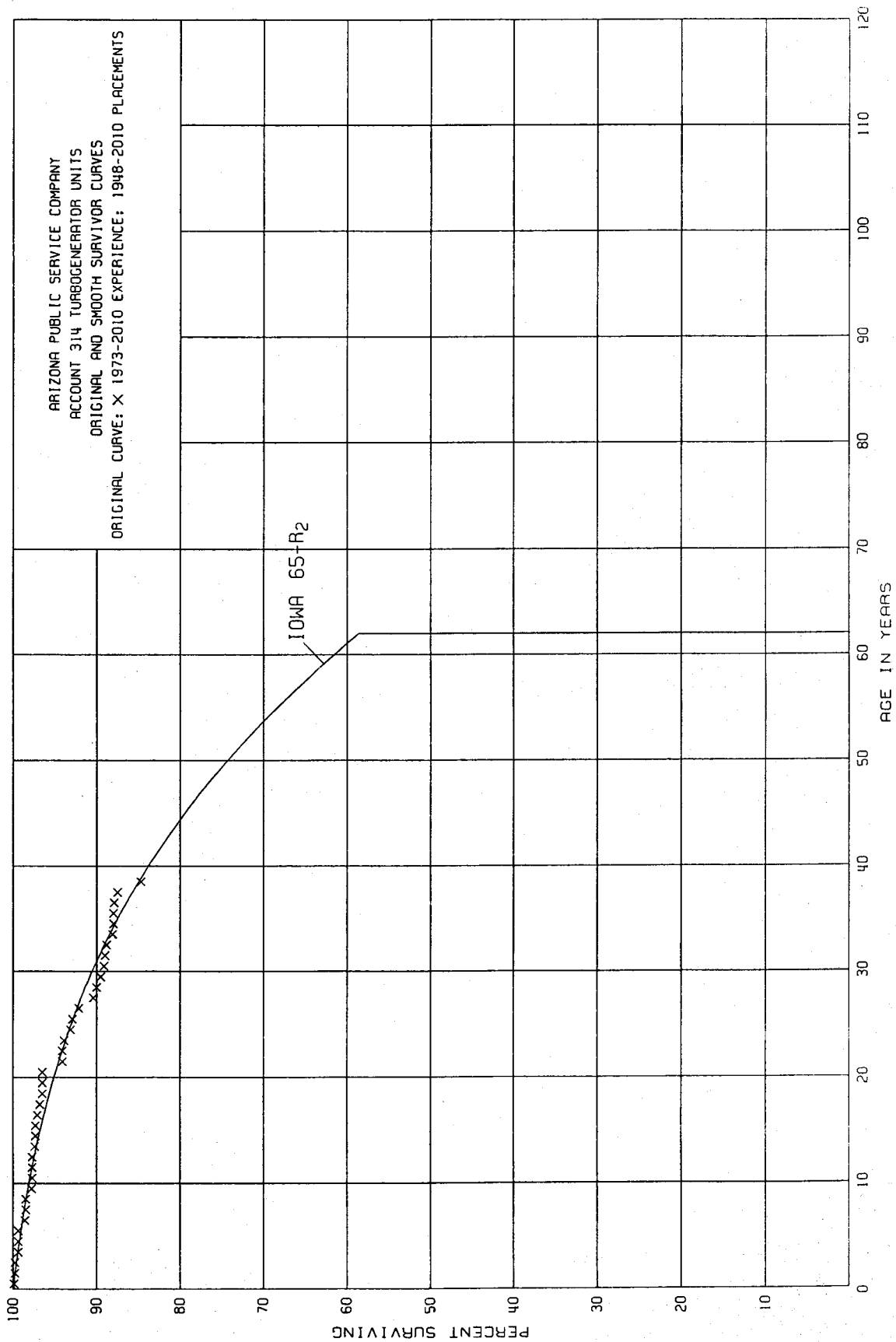
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,231,200,262	4,335	0.0000	1.0000	100.00
0.5	1,219,701,527	400,427	0.0003	0.9997	100.00
1.5	1,176,962,172	1,083,231	0.0009	0.9991	99.97
2.5	1,126,549,776	977,858	0.0009	0.9991	99.88
3.5	987,759,265	5,701,103	0.0058	0.9942	99.79
4.5	867,930,823	695,968	0.0008	0.9992	99.21
5.5	832,755,183	957,662	0.0011	0.9989	99.13
6.5	811,462,973	1,000,101	0.0012	0.9988	99.02
7.5	791,828,181	3,349,923	0.0042	0.9958	98.90
8.5	749,214,968	1,154,661	0.0015	0.9985	98.48
9.5	773,117,847	1,776,706	0.0023	0.9977	98.33
10.5	760,104,474	2,703,347	0.0036	0.9964	98.10
11.5	702,469,895	2,527,110	0.0036	0.9964	97.75
12.5	692,346,073	757,114	0.0011	0.9989	97.40
13.5	654,930,234	585,153	0.0009	0.9991	97.29
14.5	642,429,076	1,044,577	0.0016	0.9984	97.20
15.5	639,956,908	1,544,420	0.0024	0.9976	97.04
16.5	633,550,217	1,918,234	0.0030	0.9970	96.81
17.5	630,391,217	937,817	0.0015	0.9985	96.52
18.5	633,409,723	6,045,232	0.0095	0.9905	96.38
19.5	617,501,437	1,881,755	0.0030	0.9970	95.46
20.5	598,767,438	6,958,439	0.0116	0.9884	95.17
21.5	580,127,947	1,248,549	0.0022	0.9978	94.07
22.5	571,194,091	3,001,793	0.0053	0.9947	93.86
23.5	557,610,113	5,400,837	0.0097	0.9903	93.36
24.5	536,479,287	1,507,628	0.0028	0.9972	92.45
25.5	529,217,164	16,818,495	0.0318	0.9682	92.19
26.5	474,860,436	19,430,063	0.0409	0.9591	89.26
27.5	449,707,026	7,714,729	0.0172	0.9828	85.61
28.5	413,248,992	21,405,799	0.0518	0.9482	84.14
29.5	373,595,795	15,310,191	0.0410	0.9590	79.78
30.5	287,721,173	11,293,735	0.0393	0.9607	76.51
31.5	252,028,433	6,111,298	0.0242	0.9758	73.50
32.5	147,293,552	3,359,040	0.0228	0.9772	71.72
33.5	138,879,725	2,286,504	0.0165	0.9835	70.08
34.5	133,296,280	2,998,437	0.0225	0.9775	68.92
35.5	123,361,400	326,332	0.0026	0.9974	67.37
36.5	101,541,819	3,519,594	0.0347	0.9653	67.19
37.5	94,964,393	1,705,632	0.0180	0.9820	64.86
38.5	59,997,866	5,384,122	0.0897	0.9103	63.69

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 312 BOILER PLANT EQUIPMENT
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1948-2010

EXPERIENCE BAND 1973-2010

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	52,075,477	945,200	0.0182	0.9818	57.98
40.5	46,843,946	2,174,586	0.0464	0.9536	56.92
41.5	44,338,970	7,284,201	0.1643	0.8357	54.28
42.5	36,969,714	5,141,544	0.1391	0.8609	45.36
43.5	31,546,163	6,954,345	0.2204	0.7796	39.05
44.5	24,520,417	1,472,413	0.0600	0.9400	30.44
45.5	22,803,053	3,957,811	0.1736	0.8264	28.61
46.5	18,583,091	2,107,205	0.1134	0.8866	23.64
47.5	16,383,101	1,090,721	0.0666	0.9334	20.96
48.5	17,534,072	695,007	0.0396	0.9604	19.56
49.5	16,676,308	206,958	0.0124	0.9876	18.79
50.5	9,100,587		0.0000	1.0000	18.56
51.5	8,663,255		0.0000	1.0000	18.56
52.5	8,652,514	112,324	0.0130	0.9870	18.56
53.5	9,883,017	107,644	0.0109	0.9891	18.32
54.5	9,774,927		0.0000	1.0000	18.12
55.5	5,789,384		0.0000	1.0000	18.12
56.5	3,691,039		0.0000	1.0000	18.12
57.5	1,343,859		0.0000	1.0000	18.12
58.5	1,343,859		0.0000	1.0000	18.12
59.5	1,343,859		0.0000	1.0000	18.12
60.5	1,343,859		0.0000	1.0000	18.12
61.5	1,343,859		0.0000	1.0000	18.12
62.5					18.12



ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 314 TURBOGENERATOR UNITS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1948-2010

EXPERIENCE BAND 1973-2010

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	201,857,859	57,331	0.0003	0.9997	100.00
0.5	199,800,664	291,418	0.0015	0.9985	99.97
1.5	196,883,462		0.0000	1.0000	99.82
2.5	193,745,300	730,254	0.0038	0.9962	99.82
3.5	174,363,139		0.0000	1.0000	99.44
4.5	169,958,388		0.0000	1.0000	99.44
5.5	160,938,743	1,323,938	0.0082	0.9918	99.44
6.5	154,018,452	129,307	0.0008	0.9992	98.62
7.5	150,283,198		0.0000	1.0000	98.54
8.5	140,818,660	1,035,927	0.0074	0.9926	98.54
9.5	160,462,809	141,631	0.0009	0.9991	97.81
10.5	154,063,041	65,765	0.0004	0.9996	97.72
11.5	153,348,064		0.0000	1.0000	97.68
12.5	159,215,368	482,368	0.0030	0.9970	97.68
13.5	156,821,650	152,736	0.0010	0.9990	97.39
14.5	155,507,798		0.0000	1.0000	97.29
15.5	154,098,231	380,510	0.0025	0.9975	97.29
16.5	159,952,421	449,458	0.0028	0.9972	97.05
17.5	157,631,916	387,092	0.0025	0.9975	96.78
18.5	154,448,964	26,700	0.0002	0.9998	96.54
19.5	153,227,425	77,463	0.0005	0.9995	96.52
20.5	152,961,212	3,696,486	0.0242	0.9758	96.47
21.5	155,591,382	88,009	0.0006	0.9994	94.14
22.5	155,049,679	329,380	0.0021	0.9979	94.08
23.5	146,587,405	1,283,184	0.0088	0.9912	93.88
24.5	143,661,786	277,191	0.0019	0.9981	93.05
25.5	142,139,981	1,171,230	0.0082	0.9918	92.87
26.5	140,922,606	2,618,376	0.0186	0.9814	92.11
27.5	134,797,783	660,188	0.0049	0.9951	90.40
28.5	133,153,638	741,132	0.0056	0.9944	89.96
29.5	131,003,478	565,290	0.0043	0.9957	89.46
30.5	106,540,537	65,206	0.0006	0.9994	89.08
31.5	103,397,272	288,023	0.0028	0.9972	89.03
32.5	76,655,222	604,858	0.0079	0.9921	88.78
33.5	75,155,892	35,029	0.0005	0.9995	88.08
34.5	68,623,406	26,879	0.0004	0.9996	88.04
35.5	64,628,497	95,328	0.0015	0.9985	88.00
36.5	59,757,695	283,594	0.0047	0.9953	87.87
37.5	63,295,746	1,998,133	0.0316	0.9684	87.46
38.5	52,171,696	1,357,214	0.0260	0.9740	84.70

ARIZONA PUBLIC SERVICE COMPANY

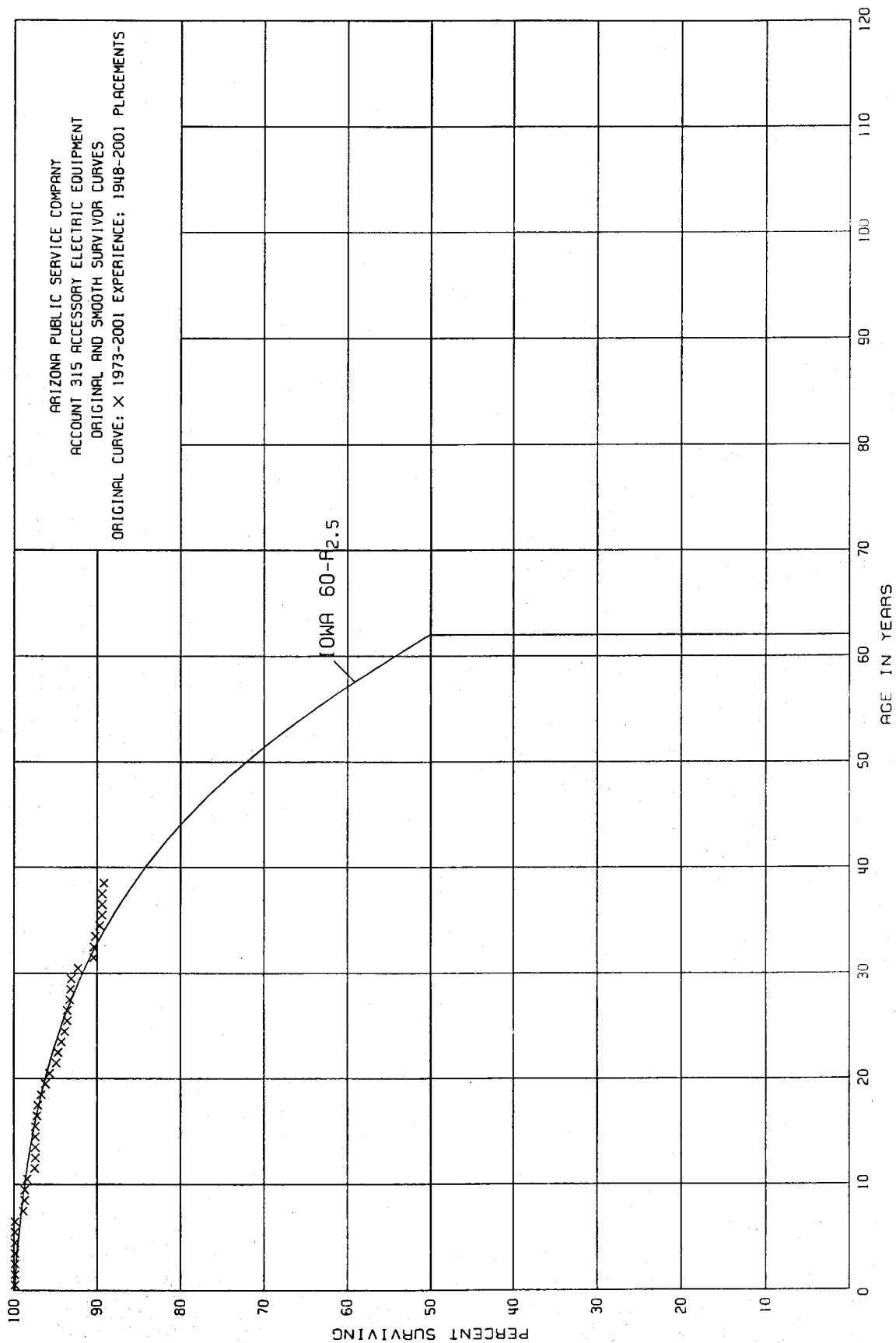
ACCOUNT 314 TURBOGENERATOR UNITS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1948-2010

EXPERIENCE BAND 1973-2010

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	44,257,195	357,480	0.0081	0.9919	82.50
40.5	39,233,254	1,043,496	0.0266	0.9734	81.83
41.5	36,816,410	631,674	0.0172	0.9828	79.65
42.5	36,105,586	304,751	0.0084	0.9916	78.28
43.5	35,792,172	1,307,991	0.0365	0.9635	77.62
44.5	34,467,772	2,021,046	0.0586	0.9414	74.79
45.5	32,446,725	174,389	0.0054	0.9946	70.41
46.5	32,271,768	246,419	0.0076	0.9924	70.03
47.5	16,447,165	418,281	0.0254	0.9746	69.50
48.5	14,889,520		0.0000	1.0000	67.73
49.5	14,881,860		0.0000	1.0000	67.73
50.5	6,089,384		0.0000	1.0000	67.73
51.5	5,889,857		0.0000	1.0000	67.73
52.5	5,889,857		0.0000	1.0000	67.73
53.5	7,339,700		0.0000	1.0000	67.73
54.5	7,339,700		0.0000	1.0000	67.73
55.5	3,517,601		0.0000	1.0000	67.73
56.5	3,517,601		0.0000	1.0000	67.73
57.5	1,449,843		0.0000	1.0000	67.73
58.5	1,449,843		0.0000	1.0000	67.73
59.5	1,449,843		0.0000	1.0000	67.73
60.5	1,449,843		0.0000	1.0000	67.73
61.5	1,449,843		0.0000	1.0000	67.73
62.5					67.73



ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT
ORIGINAL LIFE TABLE

PLACEMENT BAND 1948-2001

EXPERIENCE BAND 1973-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	124,143,071		0.0000	1.0000	100.00
0.5	121,686,061	8,707	0.0001	0.9999	100.00
1.5	120,598,104		0.0000	1.0000	99.99
2.5	117,866,032		0.0000	1.0000	99.99
3.5	119,498,333		0.0000	1.0000	99.99
4.5	117,096,365	149,600	0.0013	0.9987	99.99
5.5	118,266,579		0.0000	1.0000	99.86
6.5	117,769,060	1,188,072	0.0101	0.9899	99.86
7.5	116,106,619	217,293	0.0019	0.9981	98.85
8.5	114,316,832	1,520	0.0000	1.0000	98.66
9.5	119,292,656	303,571	0.0025	0.9975	98.66
10.5	120,299,783	1,081,077	0.0090	0.9910	98.41
11.5	116,837,416	96,401	0.0008	0.9992	97.52
12.5	117,603,702	42,217	0.0004	0.9996	97.44
13.5	114,952,279		0.0000	1.0000	97.40
14.5	114,211,851	13,510	0.0001	0.9999	97.40
15.5	111,601,850	175,864	0.0016	0.9984	97.39
16.5	114,122,098	175,202	0.0015	0.9985	97.23
17.5	108,369,816	453,980	0.0042	0.9958	97.08
18.5	105,841,903	521,777	0.0049	0.9951	96.67
19.5	101,727,443	483,274	0.0048	0.9952	96.20
20.5	100,330,745	865,006	0.0086	0.9914	95.74
21.5	70,174,203	199,598	0.0028	0.9972	94.92
22.5	70,252,946	270,033	0.0038	0.9962	94.65
23.5	27,393,848	128,346	0.0047	0.9953	94.29
24.5	27,252,015	59,735	0.0022	0.9978	93.85
25.5	21,426,584		0.0000	1.0000	93.64
26.5	16,917,546	55,098	0.0033	0.9967	93.64
27.5	12,674,358	20,811	0.0016	0.9984	93.33
28.5	13,844,304	5,545	0.0004	0.9996	93.18
29.5	13,326,736	122,826	0.0092	0.9908	93.14
30.5	11,995,577	239,835	0.0200	0.9800	92.28
31.5	10,857,303		0.0000	1.0000	90.43
32.5	10,453,927	29,301	0.0028	0.9972	90.43
33.5	10,424,369	58,752	0.0056	0.9944	90.18
34.5	10,364,185	37,576	0.0036	0.9964	89.67
35.5	10,392,793		0.0000	1.0000	89.35
36.5	10,341,534		0.0000	1.0000	89.35
37.5	10,206,927	12,181	0.0012	0.9988	89.35
38.5	4,369,725	24,979	0.0057	0.9943	89.24

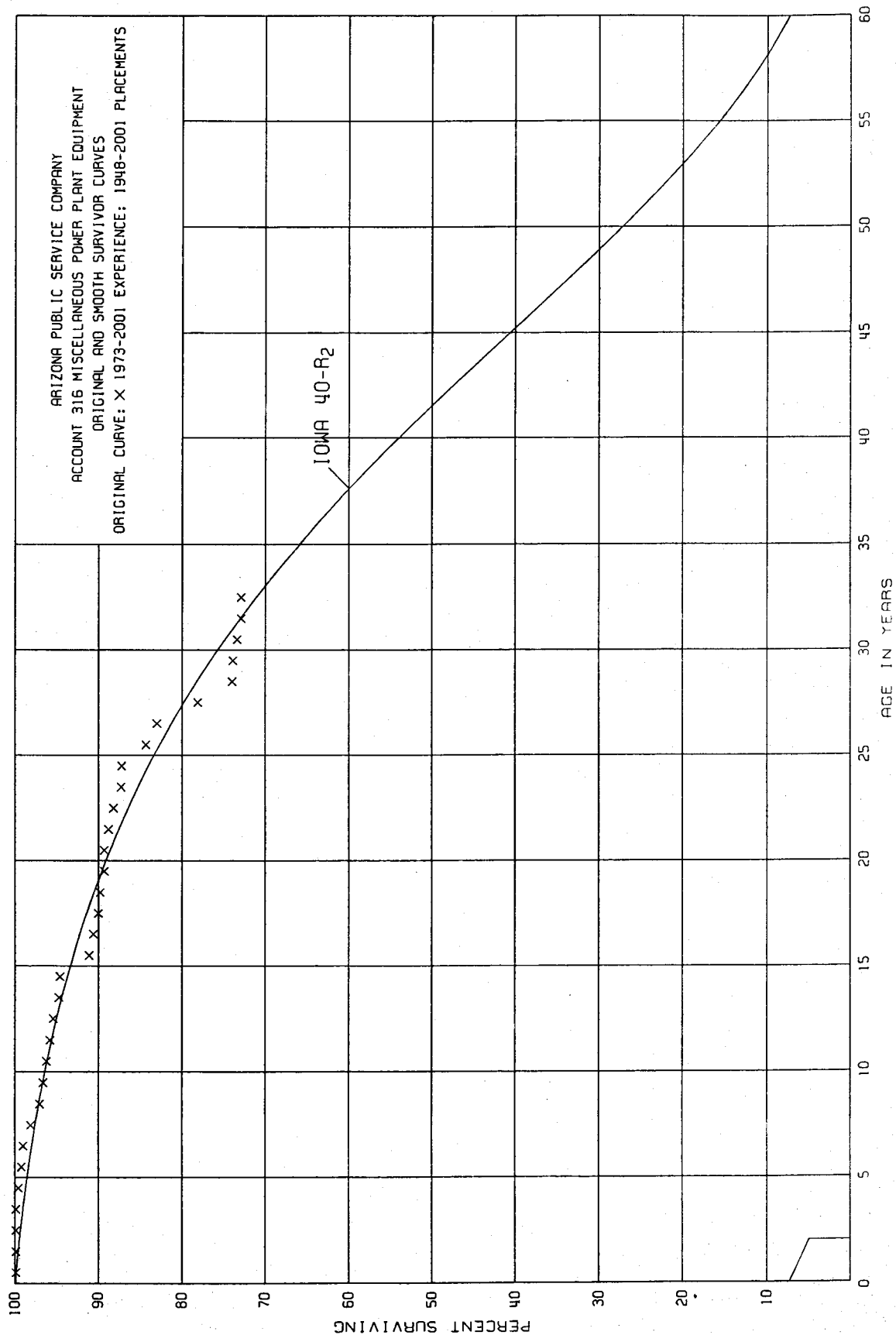
ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1948-2001

EXPERIENCE BAND 1973-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	2,931,768		0.0000	1.0000	88.73
40.5	2,866,576		0.0000	1.0000	88.73
41.5	1,081,847		0.0000	1.0000	88.73
42.5	929,714		0.0000	1.0000	88.73
43.5	929,714		0.0000	1.0000	88.73
44.5	928,136		0.0000	1.0000	88.73
45.5	925,965		0.0000	1.0000	88.73
46.5	80,299		0.0000	1.0000	88.73
47.5					88.73



ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1948-2001

EXPERIENCE BAND 1973-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	48,112,496	17,788	0.0004	0.9996	100.00
0.5	45,741,322	4,017	0.0001	0.9999	99.96
1.5	43,625,481	6,497	0.0001	0.9999	99.95
2.5	42,830,177	31,226	0.0007	0.9993	99.94
3.5	42,111,271	106,167	0.0025	0.9975	99.87
4.5	37,485,362	156,501	0.0042	0.9958	99.62
5.5	33,780,504	80,425	0.0024	0.9976	99.20
6.5	32,027,956	283,487	0.0089	0.9911	98.96
7.5	29,186,219	336,634	0.0115	0.9885	98.08
8.5	28,324,981	105,183	0.0037	0.9963	96.95
9.5	28,034,939	124,804	0.0045	0.9955	96.59
10.5	27,159,074	108,165	0.0040	0.9960	96.16
11.5	25,106,726	99,631	0.0040	0.9960	95.78
12.5	24,860,428	183,119	0.0074	0.9926	95.40
13.5	22,361,538	13,649	0.0006	0.9994	94.69
14.5	21,406,844	804,765	0.0376	0.9624	94.63
15.5	18,524,975	103,244	0.0056	0.9944	91.07
16.5	17,103,171	103,248	0.0060	0.9940	90.56
17.5	15,476,667	43,887	0.0028	0.9972	90.02
18.5	14,040,006	67,244	0.0048	0.9952	89.77
19.5	13,450,922	7,487	0.0006	0.9994	89.34
20.5	12,583,288	65,805	0.0052	0.9948	89.29
21.5	9,663,156	67,581	0.0070	0.9930	88.83
22.5	8,666,370	94,651	0.0109	0.9891	88.21
23.5	4,745,866	785	0.0002	0.9998	87.25
24.5	4,263,012	145,990	0.0342	0.9658	87.23
25.5	3,147,677	46,658	0.0148	0.9852	84.25
26.5	2,212,335	131,636	0.0595	0.9405	83.00
27.5	1,392,799	71,797	0.0515	0.9485	78.06
28.5	1,268,223	3,348	0.0026	0.9974	74.04
29.5	1,105,393	7,366	0.0067	0.9933	73.85
30.5	1,082,472	7,000	0.0065	0.9935	73.36
31.5	721,256		0.0000	1.0000	72.88
32.5	724,490	46,735	0.0645	0.9355	72.88
33.5	676,568		0.0000	1.0000	68.18
34.5	677,057		0.0000	1.0000	68.18
35.5	720,150		0.0000	1.0000	68.18
36.5	664,483		0.0000	1.0000	68.18
37.5	747,762		0.0000	1.0000	68.18
38.5	586,114	3,804	0.0065	0.9935	68.18

ARIZONA PUBLIC SERVICE COMPANY

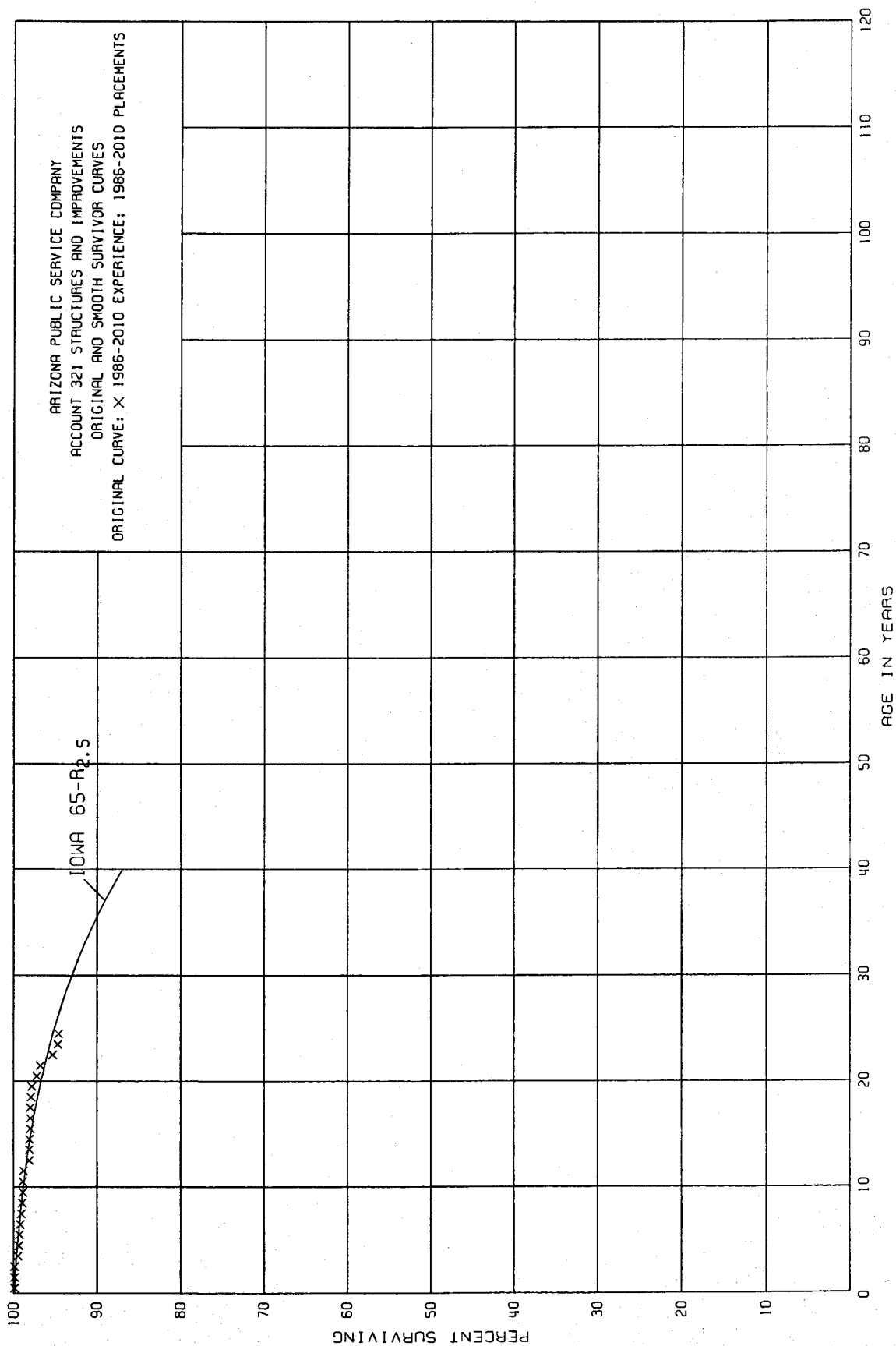
ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1948-2001

EXPERIENCE BAND 1973-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	477,136		0.0000	1.0000	67.74
40.5	474,822		0.0000	1.0000	67.74
41.5	309,832		0.0000	1.0000	67.74
42.5	213,856		0.0000	1.0000	67.74
43.5	209,260		0.0000	1.0000	67.74
44.5	209,168		0.0000	1.0000	67.74
45.5	209,168		0.0000	1.0000	67.74
46.5	124,955		0.0000	1.0000	67.74
47.5					67.74



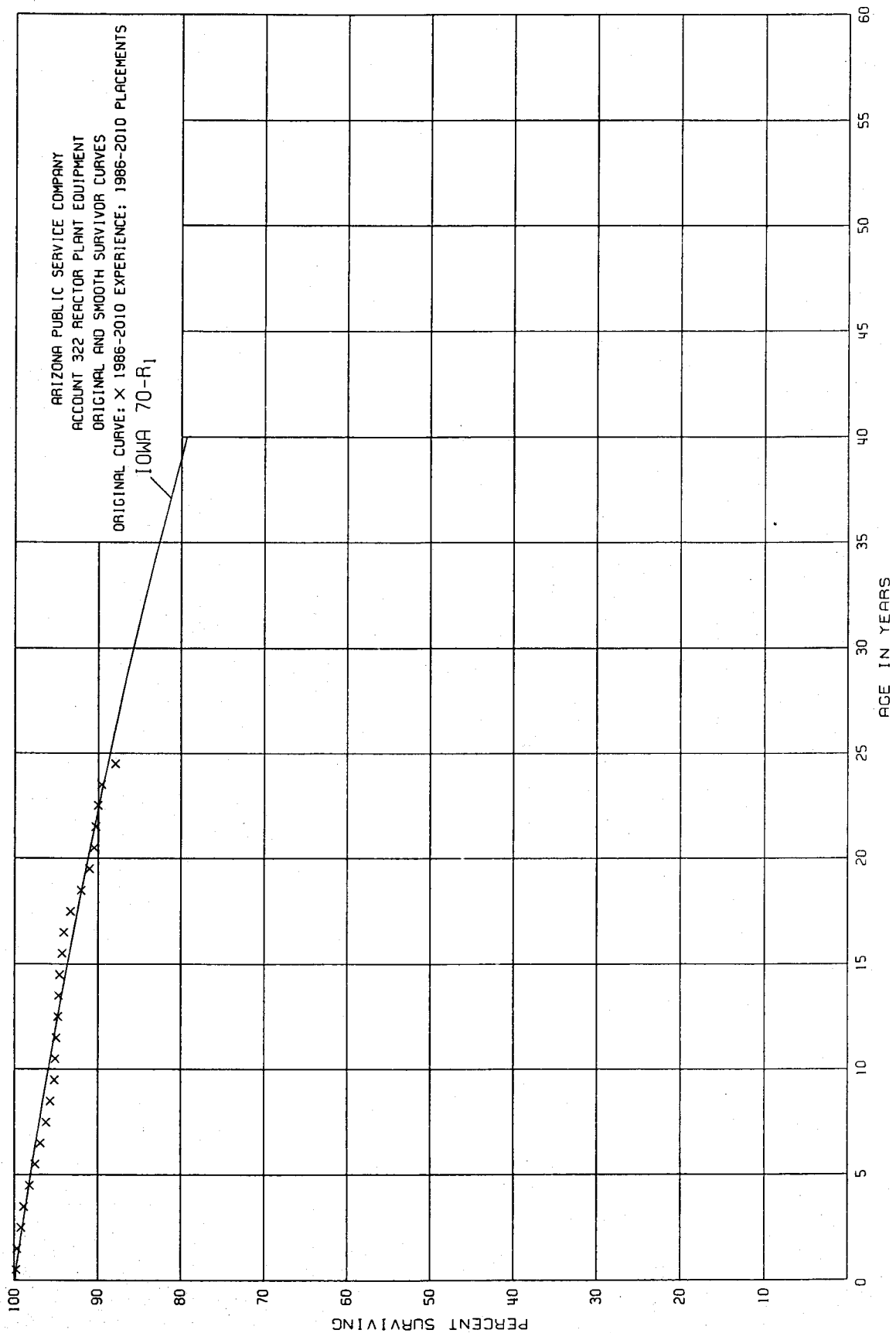
ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 321 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1986-2010

EXPERIENCE BAND 1986-2010

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	703,079,376		0.0000	1.0000	100.00
0.5	702,550,638		0.0000	1.0000	100.00
1.5	699,985,201	223,596	0.0003	0.9997	100.00
2.5	690,967,578	3,554,478	0.0051	0.9949	99.97
3.5	674,357,133	425,337	0.0006	0.9994	99.46
4.5	670,191,187	460,893	0.0007	0.9993	99.40
5.5	640,517,033	613,560	0.0010	0.9990	99.33
6.5	639,426,465	968,087	0.0015	0.9985	99.23
7.5	638,424,360	710,599	0.0011	0.9989	99.08
8.5	630,597,016	160,432	0.0003	0.9997	98.97
9.5	630,237,976	377,498	0.0006	0.9994	98.94
10.5	627,247,829	444,455	0.0007	0.9993	98.88
11.5	625,484,732	4,279,510	0.0068	0.9932	98.81
12.5	620,397,023	369,142	0.0006	0.9994	98.14
13.5	614,676,096	146,354	0.0002	0.9998	98.08
14.5	610,900,136	182,634	0.0003	0.9997	98.06
15.5	609,070,841		0.0000	1.0000	98.03
16.5	608,540,587	437,915	0.0007	0.9993	98.03
17.5	606,991,892	475,451	0.0008	0.9992	97.96
18.5	599,319,520	702,628	0.0012	0.9988	97.88
19.5	587,596,380	3,423,105	0.0058	0.9942	97.76
20.5	573,477,389	2,466,232	0.0043	0.9957	97.19
21.5	569,564,999	8,793,253	0.0154	0.9846	96.77
22.5	403,689,271	2,395,142	0.0059	0.9941	95.28
23.5	400,783,617	333,528	0.0008	0.9992	94.72
24.5					94.64

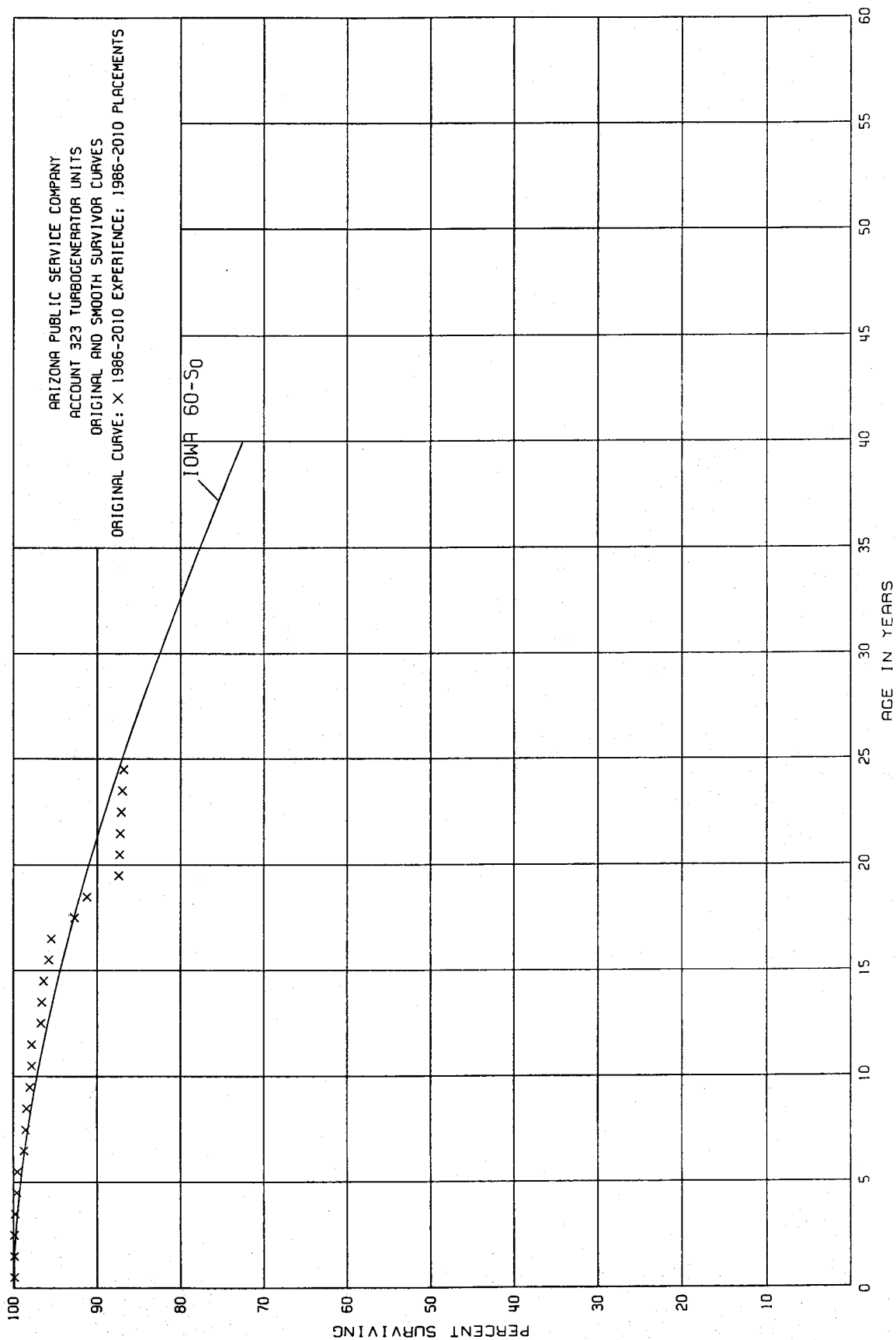


ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 322 REACTOR PLANT EQUIPMENT
ORIGINAL LIFE TABLE

PLACEMENT BAND 1986-2010

EXPERIENCE BAND 1986-2010

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,325,368,817	2,972,537	0.0022	0.9978	100.00
0.5	1,312,766,297	589,326	0.0004	0.9996	99.78
1.5	1,302,947,791	7,694,226	0.0059	0.9941	99.74
2.5	1,284,932,391	2,787,524	0.0022	0.9978	99.15
3.5	1,223,967,265	9,233,971	0.0075	0.9925	98.93
4.5	1,184,285,030	8,920,739	0.0075	0.9925	98.19
5.5	999,805,857	6,200,375	0.0062	0.9938	97.45
6.5	946,361,820	6,177,120	0.0065	0.9935	96.85
7.5	907,877,297	5,147,092	0.0057	0.9943	96.22
8.5	899,441,714	4,665,644	0.0052	0.9948	95.67
9.5	893,228,100	616,047	0.0007	0.9993	95.17
10.5	892,583,781	1,263,402	0.0014	0.9986	95.10
11.5	888,583,886	1,704,828	0.0019	0.9981	94.97
12.5	883,901,040	1,248,044	0.0014	0.9986	94.79
13.5	880,691,322	250,854	0.0003	0.9997	94.66
14.5	877,071,293	3,178,246	0.0036	0.9964	94.63
15.5	866,436,482	1,574,341	0.0018	0.9982	94.29
16.5	862,683,169	7,845,978	0.0091	0.9909	94.12
17.5	850,038,187	11,485,437	0.0135	0.9865	93.26
18.5	821,242,291	9,093,081	0.0111	0.9889	92.00
19.5	809,214,412	3,986,114	0.0049	0.9951	90.98
20.5	805,113,711	2,516,409	0.0031	0.9969	90.53
21.5	801,451,629	2,132,304	0.0027	0.9973	90.25
22.5	483,374,415	2,307,558	0.0048	0.9952	90.01
23.5	476,424,622	8,754,570	0.0184	0.9816	89.58
24.5					87.93



ARIZONA PUBLIC SERVICE COMPANY

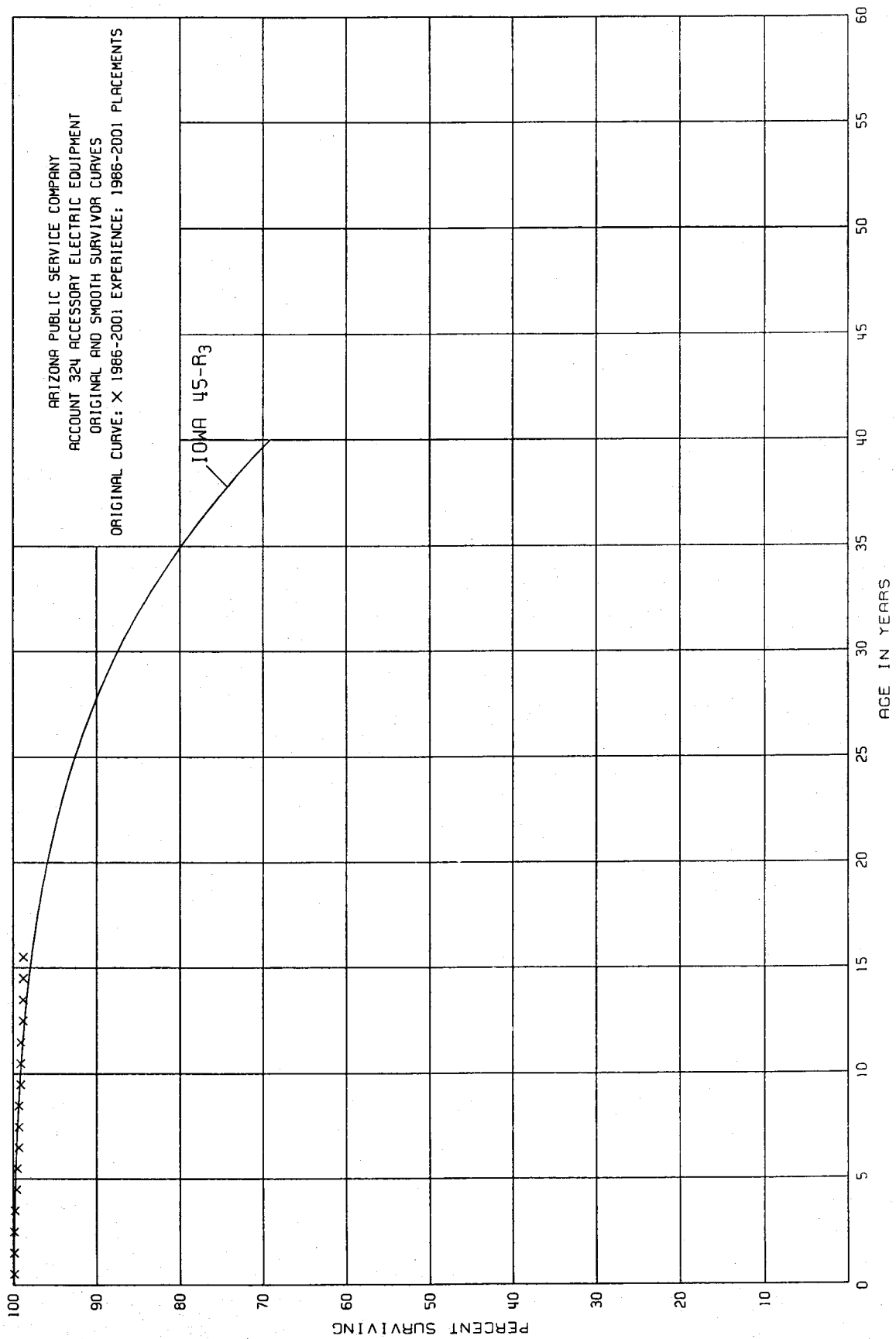
ACCOUNT 323 TURBOGENERATOR UNITS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1986-2010

EXPERIENCE BAND 1986-2010

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	404,584,934		0.0000	1.0000	100.00
0.5	404,301,966		0.0000	1.0000	100.00
1.5	403,898,737	456,603	0.0011	0.9989	100.00
2.5	403,175,664	502,365	0.0012	0.9988	99.89
3.5	386,960,853	496,096	0.0013	0.9987	99.77
4.5	383,444,116	577,348	0.0015	0.9985	99.64
5.5	362,760,998	3,038,210	0.0084	0.9916	99.49
6.5	356,926,804	415,411	0.0012	0.9988	98.65
7.5	347,552,376	396,505	0.0011	0.9989	98.53
8.5	346,177,292	1,530,186	0.0044	0.9956	98.42
9.5	344,221,710	645,707	0.0019	0.9981	97.99
10.5	340,710,952	52,575	0.0002	0.9998	97.80
11.5	337,670,179	3,698,788	0.0110	0.9890	97.78
12.5	333,390,580	542,686	0.0016	0.9984	96.70
13.5	330,726,166	678,341	0.0021	0.9979	96.55
14.5	329,439,773	1,866,052	0.0057	0.9943	96.35
15.5	326,447,380	1,088,717	0.0033	0.9967	95.80
16.5	322,843,958	9,501,826	0.0294	0.9706	95.48
17.5	311,197,072	4,784,441	0.0154	0.9846	92.67
18.5	305,177,724	12,754,647	0.0418	0.9582	91.24
19.5	290,071,976	413,901	0.0014	0.9986	87.43
20.5	289,261,660	266,491	0.0009	0.9991	87.31
21.5	288,360,365	412,966	0.0014	0.9986	87.23
22.5	163,549,517	266,491	0.0016	0.9984	87.11
23.5	163,283,026	266,491	0.0016	0.9984	86.97
24.5					86.83



ARIZONA PUBLIC SERVICE COMPANY

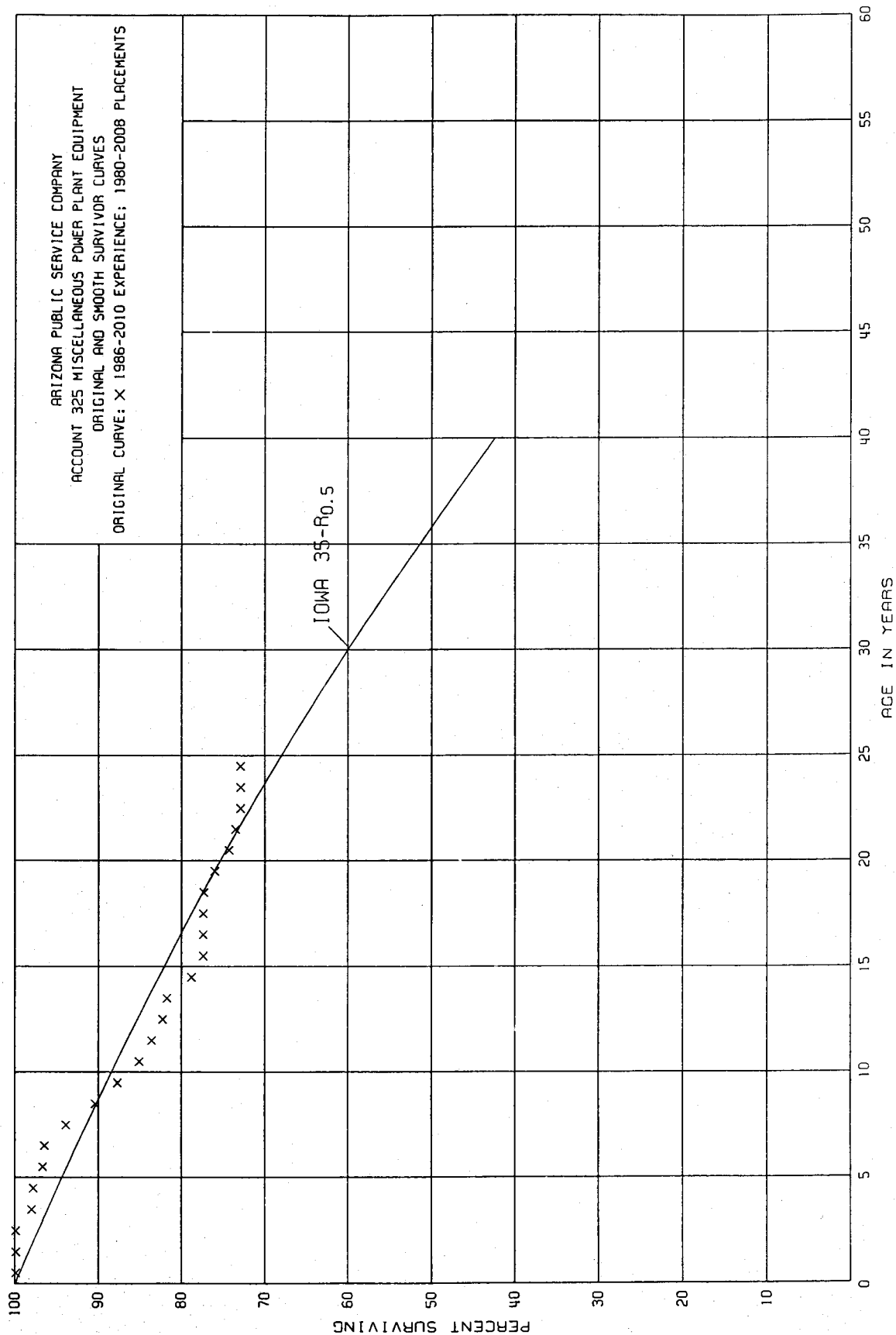
ACCOUNT 324 ACCESSORY ELECTRIC EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1986-2001

EXPERIENCE BAND 1986-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	293,812,372	3,238	0.0000	1.0000	100.00
0.5	293,296,876	13,787	0.0000	1.0000	100.00
1.5	293,781,908	293,722	0.0010	0.9990	100.00
2.5	292,717,107	414,957	0.0014	0.9986	99.90
3.5	285,903,610	581,274	0.0020	0.9980	99.76
4.5	283,426,968	134,936	0.0005	0.9995	99.56
5.5	271,048,398	544,252	0.0020	0.9980	99.51
6.5	269,869,637	113,095	0.0004	0.9996	99.31
7.5	269,516,425	56,025	0.0002	0.9998	99.27
8.5	264,521,133	296,956	0.0011	0.9989	99.25
9.5	263,134,814	57,117	0.0002	0.9998	99.14
10.5	261,745,174	859	0.0000	1.0000	99.12
11.5	261,606,609	726,377	0.0028	0.9972	99.12
12.5	260,757,954	1,252	0.0000	1.0000	98.84
13.5	172,668,645		0.0000	1.0000	98.84
14.5	133,074,496		0.0000	1.0000	98.84
15.5					98.84



ARIZONA PUBLIC SERVICE COMPANY

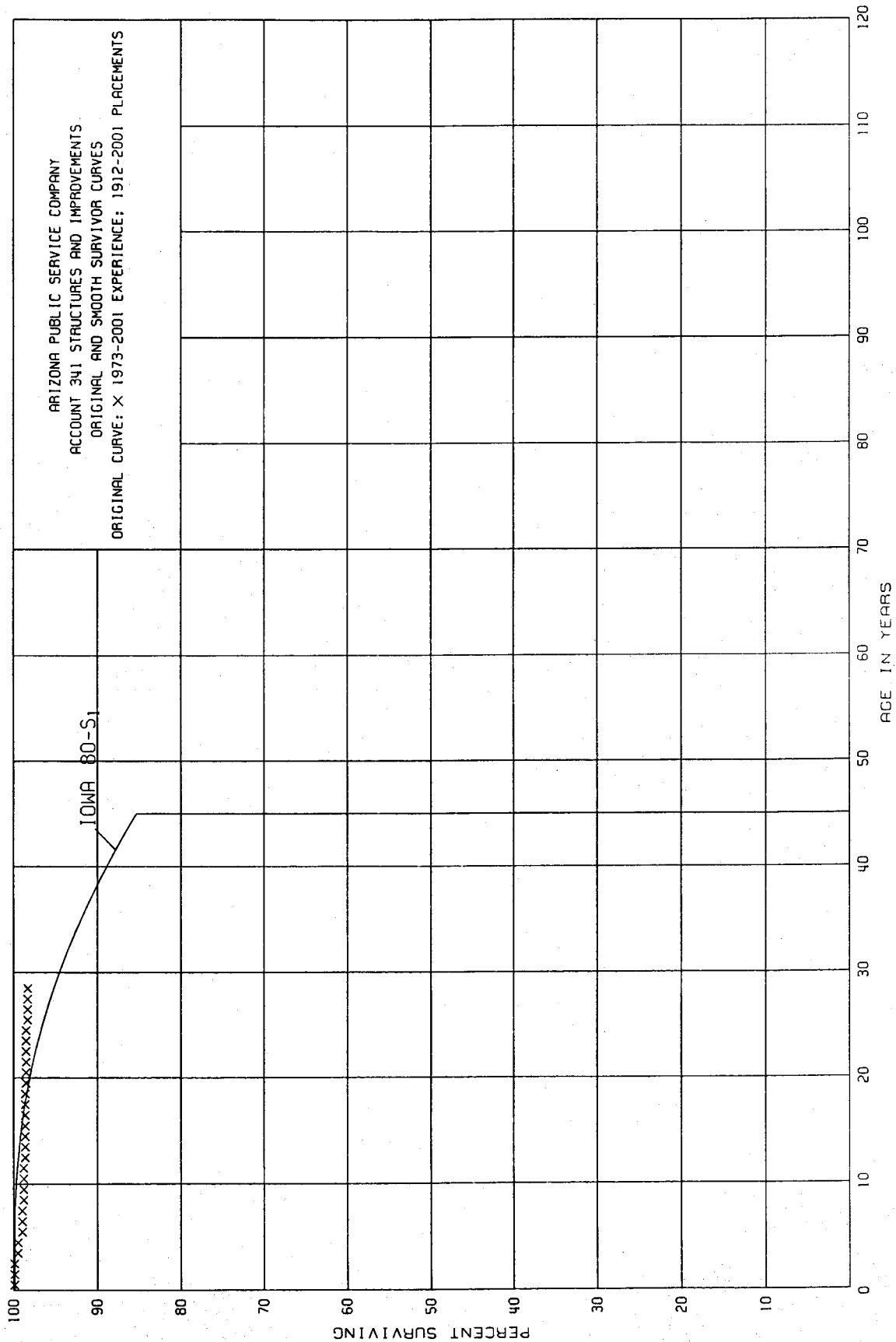
ACCOUNT 325 MISCELLANEOUS POWER PLANT EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1980-2008

EXPERIENCE BAND 1986-2010

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	180,162,624	34,412	0.0002	0.9998	100.00
0.5	182,092,250		0.0000	1.0000	99.98
1.5	179,978,639	72,367	0.0004	0.9996	99.98
2.5	179,419,177	3,474,224	0.0194	0.9806	99.94
3.5	173,342,954	395,347	0.0023	0.9977	98.00
4.5	170,284,065	1,936,993	0.0114	0.9886	97.77
5.5	162,279,507	255,698	0.0016	0.9984	96.66
6.5	161,870,388	4,378,924	0.0271	0.9729	96.51
7.5	159,107,055	5,842,118	0.0367	0.9633	93.89
8.5	153,110,842	4,691,560	0.0306	0.9694	90.44
9.5	148,319,993	4,349,592	0.0293	0.9707	87.67
10.5	143,219,831	2,481,033	0.0173	0.9827	85.10
11.5	139,323,262	2,192,479	0.0157	0.9843	83.63
12.5	136,881,832	816,764	0.0060	0.9940	82.32
13.5	135,374,931	5,041,070	0.0372	0.9628	81.83
14.5	128,222,368	2,236,620	0.0174	0.9826	78.79
15.5	116,052,642	16,339	0.0001	0.9999	77.42
16.5	100,687,341		0.0000	1.0000	77.41
17.5	97,053,668	126,583	0.0013	0.9987	77.41
18.5	93,674,953	1,628,525	0.0174	0.9826	77.31
19.5	89,248,723	1,981,626	0.0222	0.9778	75.96
20.5	77,749,753	839,446	0.0108	0.9892	74.27
21.5	74,744,421	572,955	0.0077	0.9923	73.47
22.5	47,673,138		0.0000	1.0000	72.90
23.5	47,605,013		0.0000	1.0000	72.90
24.5					72.90



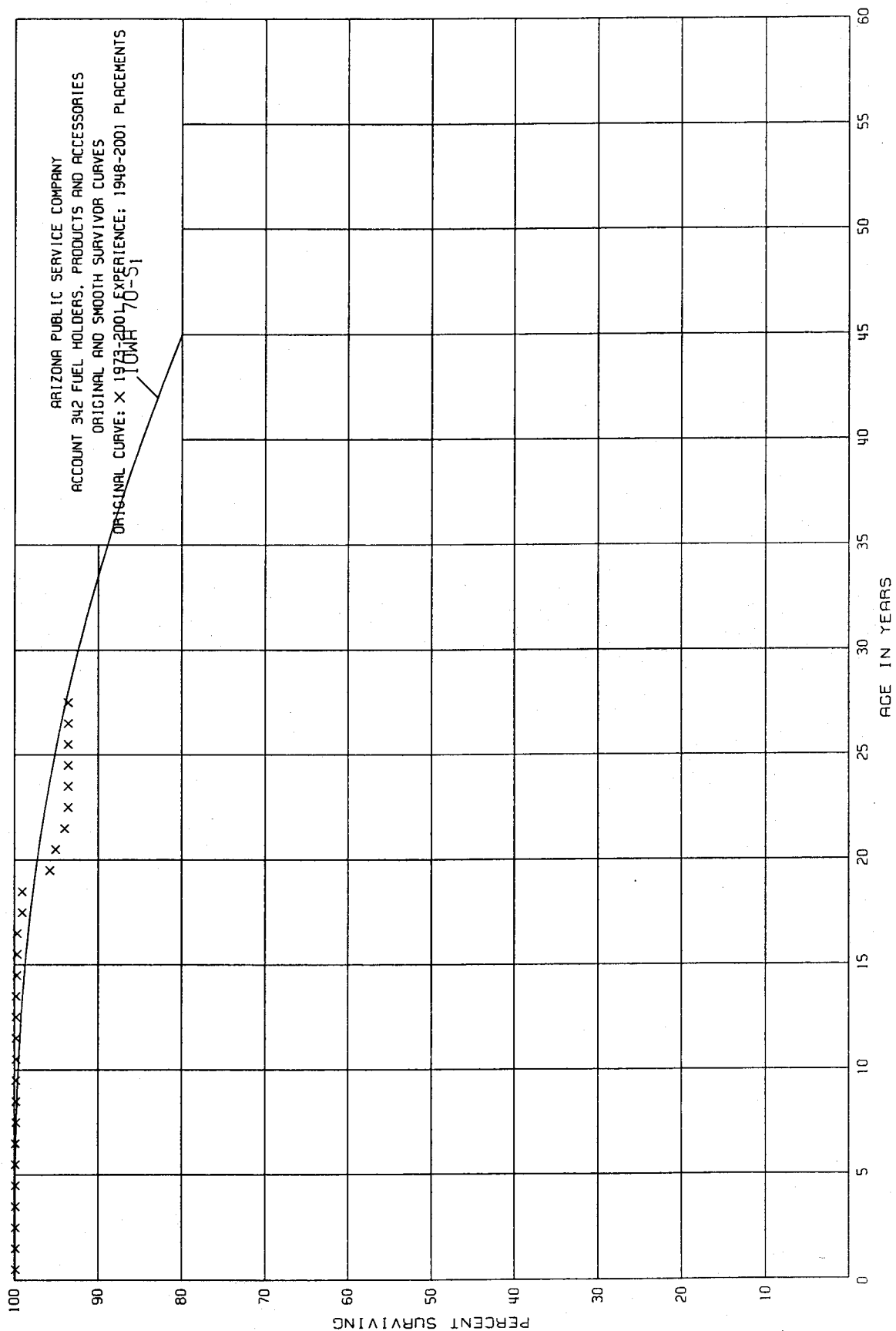
ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 341 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1912-2001

EXPERIENCE BAND 1973-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	6,446,284		0.0000	1.0000	100.00
0.5	5,806,699		0.0000	1.0000	100.00
1.5	7,712,615		0.0000	1.0000	100.00
2.5	7,814,706	36,797	0.0047	0.9953	100.00
3.5	7,621,114		0.0000	1.0000	99.53
4.5	7,565,413	38,826	0.0051	0.9949	99.53
5.5	7,323,190		0.0000	1.0000	99.02
6.5	7,216,099	900	0.0001	0.9999	99.02
7.5	7,080,537	14,269	0.0020	0.9980	99.01
8.5	7,058,319	3	0.0000	1.0000	98.81
9.5	7,023,352		0.0000	1.0000	98.81
10.5	7,078,559		0.0000	1.0000	98.81
11.5	6,971,239	12,750	0.0018	0.9982	98.81
12.5	6,936,151		0.0000	1.0000	98.63
13.5	6,999,249		0.0000	1.0000	98.63
14.5	6,539,896		0.0000	1.0000	98.63
15.5	6,562,272		0.0000	1.0000	98.63
16.5	6,109,413		0.0000	1.0000	98.63
17.5	5,940,932		0.0000	1.0000	98.63
18.5	3,740,322	4,000	0.0011	0.9989	98.63
19.5	3,906,779		0.0000	1.0000	98.52
20.5	3,884,068		0.0000	1.0000	98.52
21.5	3,884,068		0.0000	1.0000	98.52
22.5	3,960,703		0.0000	1.0000	98.52
23.5	3,938,327		0.0000	1.0000	98.52
24.5	3,935,384	10,450	0.0027	0.9973	98.52
25.5	1,160,356		0.0000	1.0000	98.25
26.5	1,095,004		0.0000	1.0000	98.25
27.5	955,256		0.0000	1.0000	98.25
28.5	113,078		0.0000	1.0000	98.25
29.5	79,986		0.0000	1.0000	98.25
30.5	17,431		0.0000	1.0000	98.25
31.5	17,431		0.0000	1.0000	98.25
32.5	17,431		0.0000	1.0000	98.25
33.5	17,431		0.0000	1.0000	98.25
34.5	17,431		0.0000	1.0000	98.25
35.5	17,431		0.0000	1.0000	98.25
36.5	17,431		0.0000	1.0000	98.25
37.5	17,431		0.0000	1.0000	98.25
38.5					98.25



ARIZONA PUBLIC SERVICE COMPANY

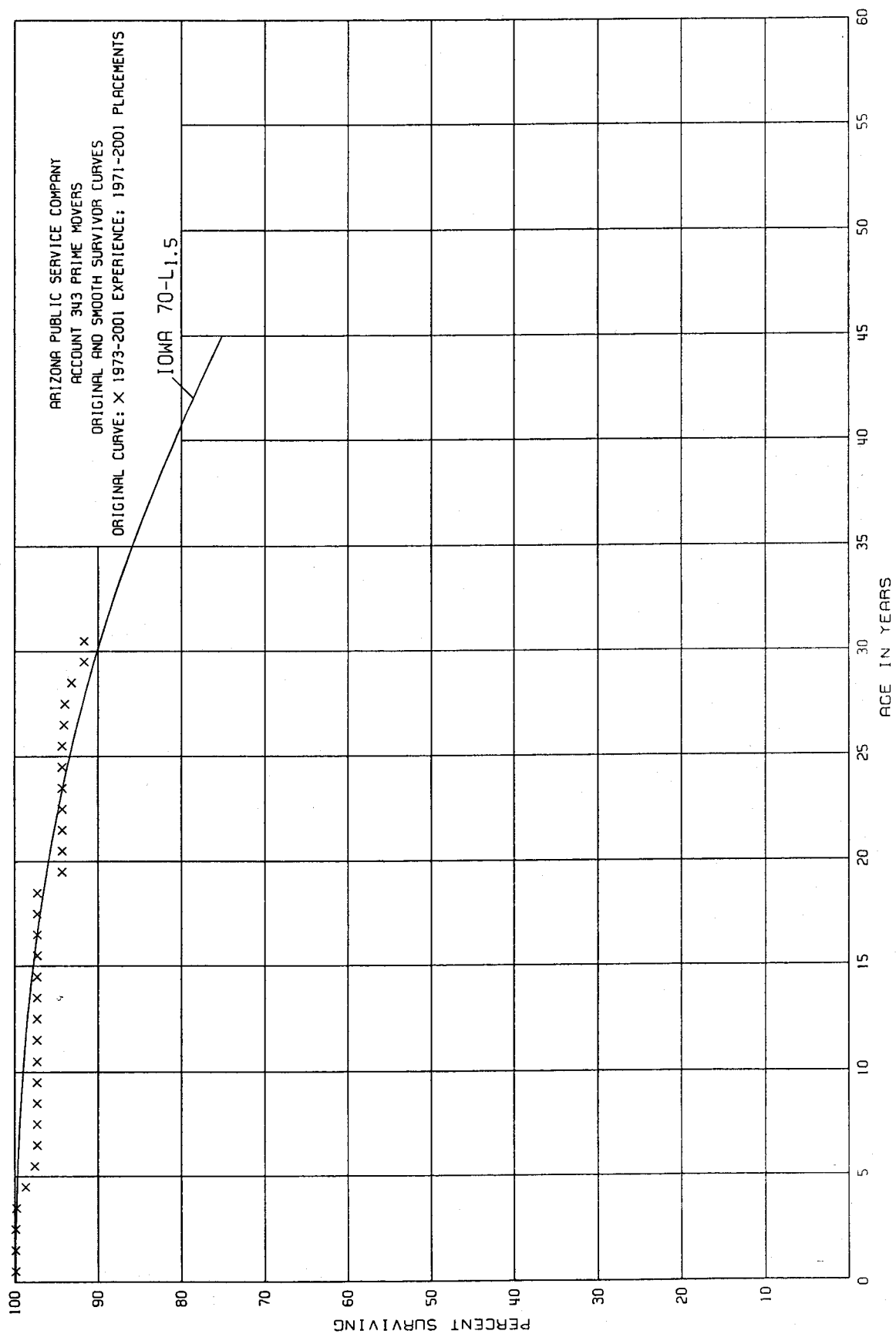
ACCOUNT 342 FUEL HOLDERS, PRODUCTS AND ACCESSORIES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1948-2001

EXPERIENCE BAND 1973-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	34,364,178	10,580	0.0003	0.9997	100.00
0.5	34,372,819	7,730	0.0002	0.9998	99.97
1.5	23,380,021		0.0000	1.0000	99.95
2.5	23,380,021		0.0000	1.0000	99.95
3.5	23,364,907		0.0000	1.0000	99.95
4.5	23,364,907		0.0000	1.0000	99.95
5.5	23,364,907		0.0000	1.0000	99.95
6.5	23,364,907	38,502	0.0016	0.9984	99.95
7.5	23,326,405		0.0000	1.0000	99.79
8.5	22,747,576		0.0000	1.0000	99.79
9.5	22,478,323		0.0000	1.0000	99.79
10.5	21,557,839		0.0000	1.0000	99.79
11.5	21,046,344		0.0000	1.0000	99.79
12.5	21,033,385		0.0000	1.0000	99.79
13.5	21,192,516	18,490	0.0009	0.9991	99.79
14.5	21,059,512		0.0000	1.0000	99.70
15.5	20,945,984		0.0000	1.0000	99.70
16.5	20,357,697	128,050	0.0063	0.9937	99.70
17.5	20,229,647		0.0000	1.0000	99.07
18.5	6,446,620	214,196	0.0332	0.9668	99.07
19.5	6,230,448	42,920	0.0069	0.9931	95.78
20.5	6,253,453	76,587	0.0122	0.9878	95.12
21.5	6,176,866	22,874	0.0037	0.9963	93.96
22.5	6,132,548		0.0000	1.0000	93.61
23.5	6,123,824		0.0000	1.0000	93.61
24.5	5,690,981		0.0000	1.0000	93.61
25.5	5,133,524		0.0000	1.0000	93.61
26.5	5,121,535		0.0000	1.0000	93.61
27.5	876,630		0.0000	1.0000	93.61
28.5	575,404		0.0000	1.0000	93.61
29.5	118,702		0.0000	1.0000	93.61
30.5					93.61



ARIZONA PUBLIC SERVICE COMPANY

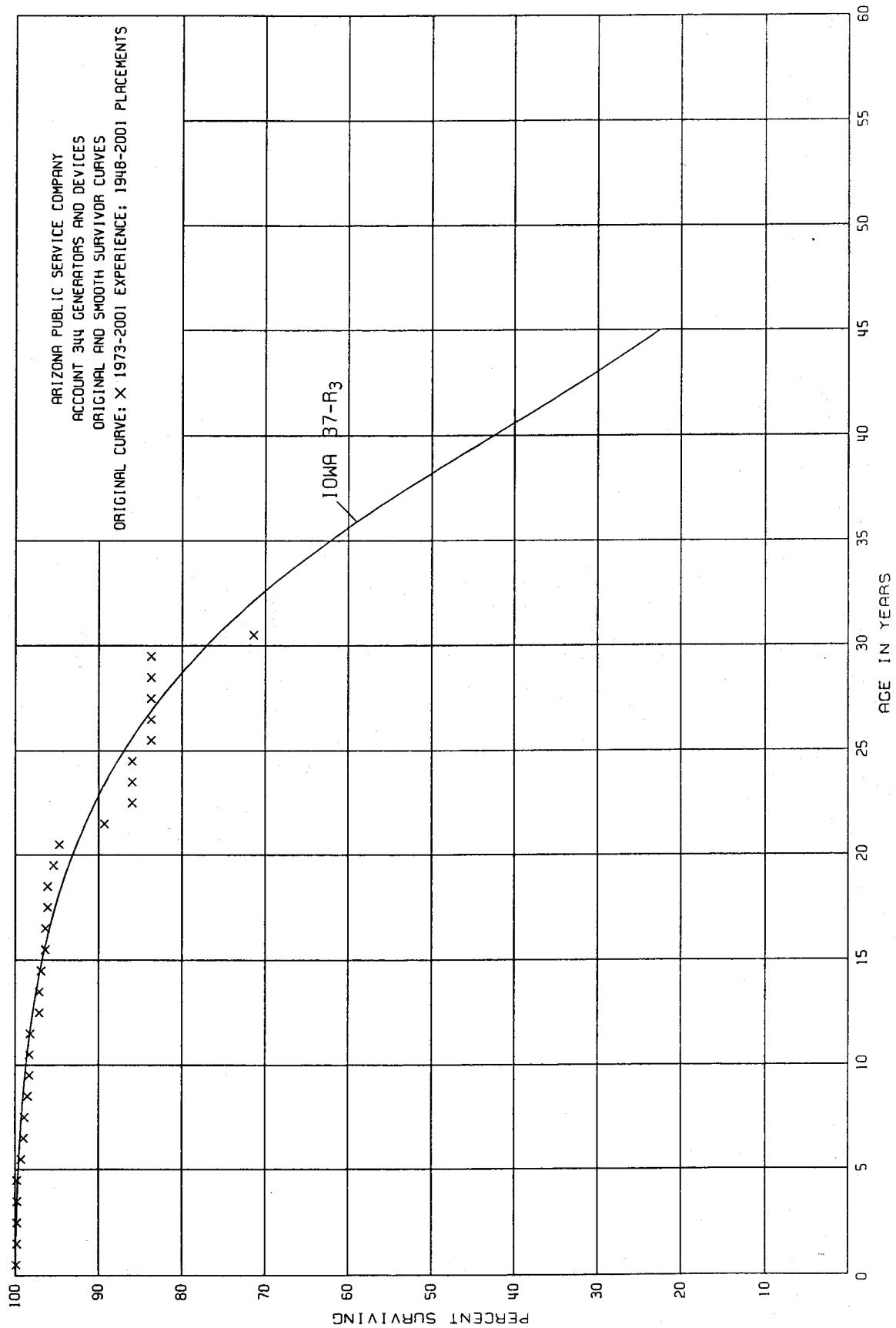
ACCOUNT 343 PRIME MOVERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1971-2001

EXPERIENCE BAND 1973-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	25,916,210		0.0000	1.0000	100.00
0.5	30,379,686		0.0000	1.0000	100.00
1.5	32,036,607		0.0000	1.0000	100.00
2.5	31,628,864	72,000	0.0023	0.9977	100.00
3.5	32,290,580	348,806	0.0108	0.9892	99.77
4.5	31,941,774	364,918	0.0114	0.9886	98.69
5.5	31,576,856	88,373	0.0028	0.9972	97.56
6.5	31,488,483		0.0000	1.0000	97.29
7.5	31,488,483		0.0000	1.0000	97.29
8.5	35,349,716		0.0000	1.0000	97.29
9.5	34,517,628		0.0000	1.0000	97.29
10.5	34,371,729		0.0000	1.0000	97.29
11.5	34,371,729		0.0000	1.0000	97.29
12.5	34,371,729		0.0000	1.0000	97.29
13.5	29,969,328		0.0000	1.0000	97.29
14.5	29,947,073		0.0000	1.0000	97.29
15.5	29,849,711		0.0000	1.0000	97.29
16.5	29,864,641		0.0000	1.0000	97.29
17.5	29,886,896		0.0000	1.0000	97.29
18.5	26,213,376	800,930	0.0306	0.9694	97.29
19.5	24,569,787		0.0000	1.0000	94.31
20.5	28,170,301		0.0000	1.0000	94.31
21.5	28,170,301		0.0000	1.0000	94.31
22.5	27,675,539		0.0000	1.0000	94.31
23.5	27,111,447		0.0000	1.0000	94.31
24.5	27,111,447		0.0000	1.0000	94.31
25.5	26,889,989	48,714	0.0018	0.9982	94.31
26.5	26,841,275	47,747	0.0018	0.9982	94.14
27.5	23,701,812	185,403	0.0078	0.9922	93.97
28.5	11,188,881	182,106	0.0163	0.9837	93.24
29.5	2,047,458		0.0000	1.0000	91.72
30.5					91.72



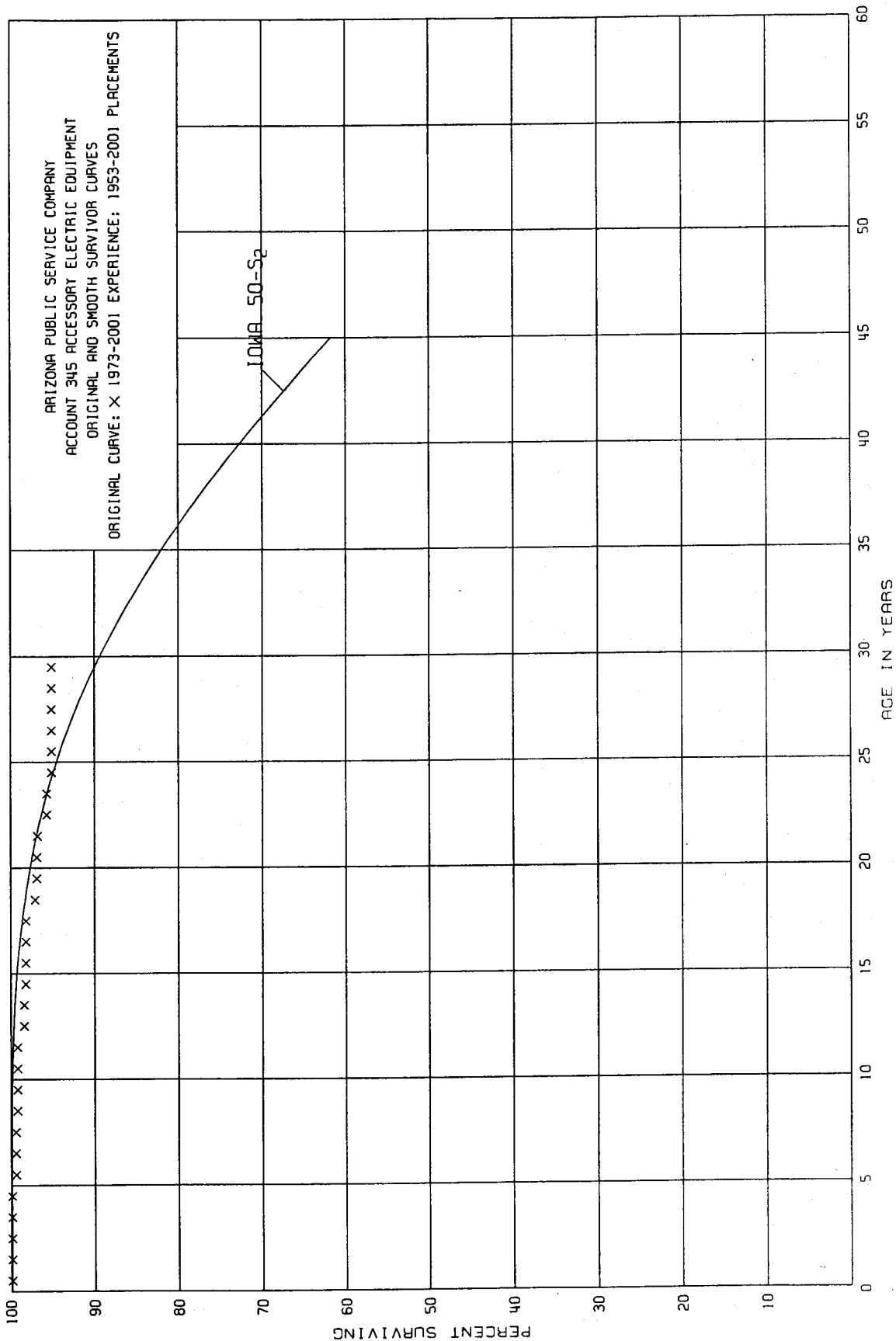
ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 344 GENERATORS AND DEVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1948-2001

EXPERIENCE BAND 1973-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	147,630,778		0.0000	1.0000	100.00
0.5	142,144,778	224,378	0.0016	0.9984	100.00
1.5	84,165,679		0.0000	1.0000	99.84
2.5	82,519,784		0.0000	1.0000	99.84
3.5	77,448,273	5,089	0.0001	0.9999	99.84
4.5	76,549,374	412,547	0.0054	0.9946	99.83
5.5	75,212,689	225,488	0.0030	0.9970	99.29
6.5	74,305,905	103,849	0.0014	0.9986	98.99
7.5	73,905,567	235,355	0.0032	0.9968	98.85
8.5	69,660,907	133,000	0.0019	0.9981	98.53
9.5	67,289,889	34,385	0.0005	0.9995	98.34
10.5	67,210,858	66,889	0.0010	0.9990	98.29
11.5	66,635,811	729,035	0.0109	0.9891	98.19
12.5	64,694,601		0.0000	1.0000	97.12
13.5	63,457,791	158,236	0.0025	0.9975	97.12
14.5	62,952,817	296,240	0.0047	0.9953	96.88
15.5	62,656,577		0.0000	1.0000	96.42
16.5	62,270,857	238,050	0.0038	0.9962	96.42
17.5	62,150,552		0.0000	1.0000	96.05
18.5	11,642,542	79,167	0.0068	0.9932	96.05
19.5	11,560,851	91,057	0.0079	0.9921	95.40
20.5	12,243,408	687,969	0.0562	0.9438	94.65
21.5	11,555,439	436,512	0.0378	0.9622	89.33
22.5	11,115,941		0.0000	1.0000	85.95
23.5	11,108,240		0.0000	1.0000	85.95
24.5	11,105,909	295,240	0.0266	0.9734	85.95
25.5	9,013,222		0.0000	1.0000	83.66
26.5	9,013,222		0.0000	1.0000	83.66
27.5	7,451,023		0.0000	1.0000	83.66
28.5	4,296,254		0.0000	1.0000	83.66
29.5	1,071,486	157,000	0.1465	0.8535	83.66
30.5					71.40



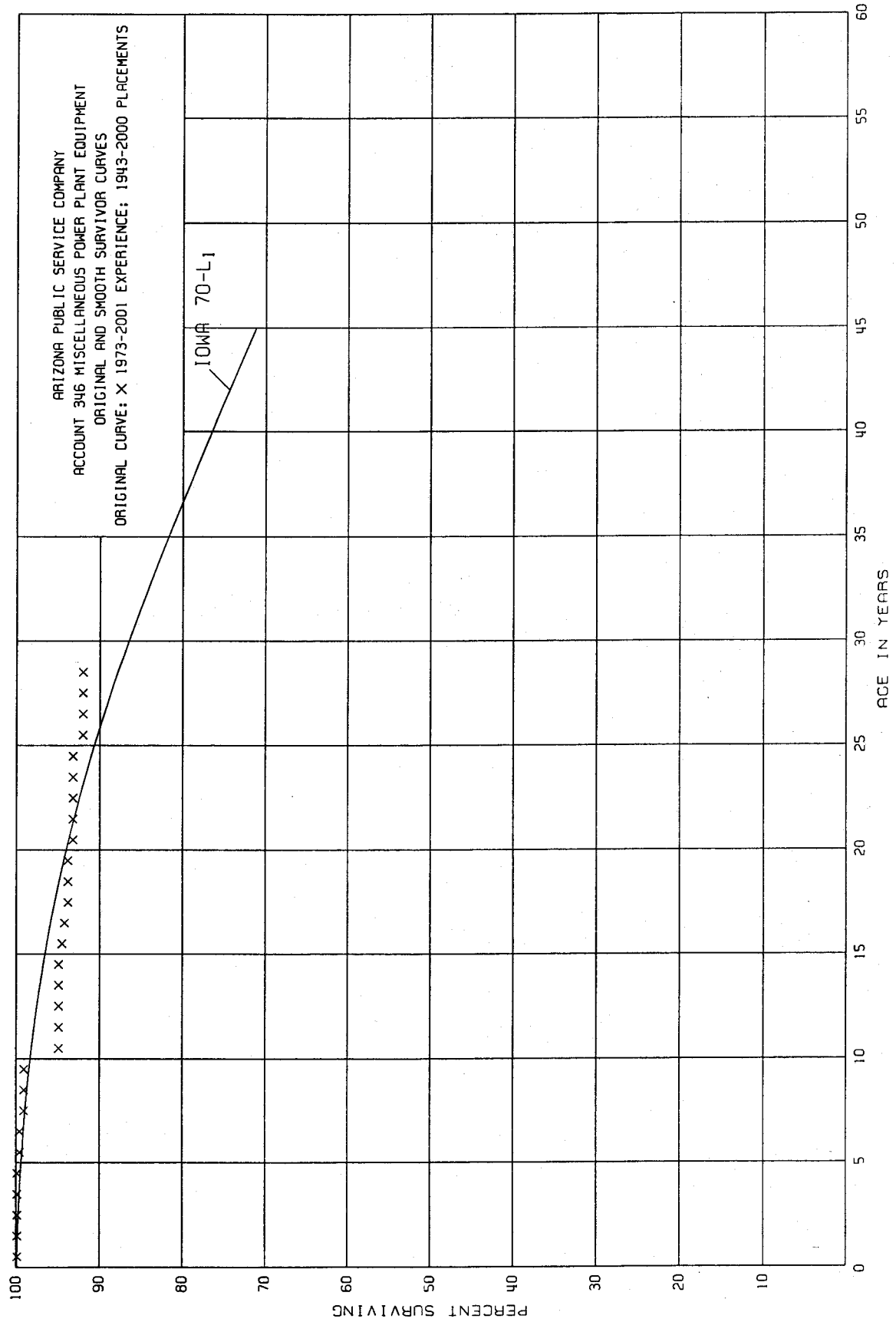
ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 345 ACCESSORY ELECTRIC EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1953-2001

EXPERIENCE BAND 1973-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	16,611,750		0.0000	1.0000	100.00
0.5	19,215,050		0.0000	1.0000	100.00
1.5	15,472,594		0.0000	1.0000	100.00
2.5	15,323,740		0.0000	1.0000	100.00
3.5	14,920,801		0.0000	1.0000	100.00
4.5	14,909,451	96,512	0.0065	0.9935	100.00
5.5	14,683,344		0.0000	1.0000	99.35
6.5	14,590,672		0.0000	1.0000	99.35
7.5	14,228,304	15,873	0.0011	0.9989	99.35
8.5	14,059,953		0.0000	1.0000	99.24
9.5	13,836,653		0.0000	1.0000	99.24
10.5	13,809,719		0.0000	1.0000	99.24
11.5	13,518,344	120,000	0.0089	0.9911	99.24
12.5	13,282,108		0.0000	1.0000	98.36
13.5	13,198,376	15,453	0.0012	0.9988	98.36
14.5	13,139,855		0.0000	1.0000	98.24
15.5	13,124,301		0.0000	1.0000	98.24
16.5	12,773,654		0.0000	1.0000	98.24
17.5	12,422,145	139,766	0.0113	0.9887	98.24
18.5	7,192,046	14,468	0.0020	0.9980	97.13
19.5	7,063,072		0.0000	1.0000	96.94
20.5	7,881,638	16,124	0.0020	0.9980	96.94
21.5	7,860,012	85,769	0.0109	0.9891	96.75
22.5	7,774,243		0.0000	1.0000	95.70
23.5	7,774,243	53,090	0.0068	0.9932	95.70
24.5	7,718,269		0.0000	1.0000	95.05
25.5	5,415,172		0.0000	1.0000	95.05
26.5	5,409,643		0.0000	1.0000	95.05
27.5	4,924,802		0.0000	1.0000	95.05
28.5	3,209,095		0.0000	1.0000	95.05
29.5	614,123		0.0000	1.0000	95.05
30.5					95.05



ARIZONA PUBLIC SERVICE COMPANY

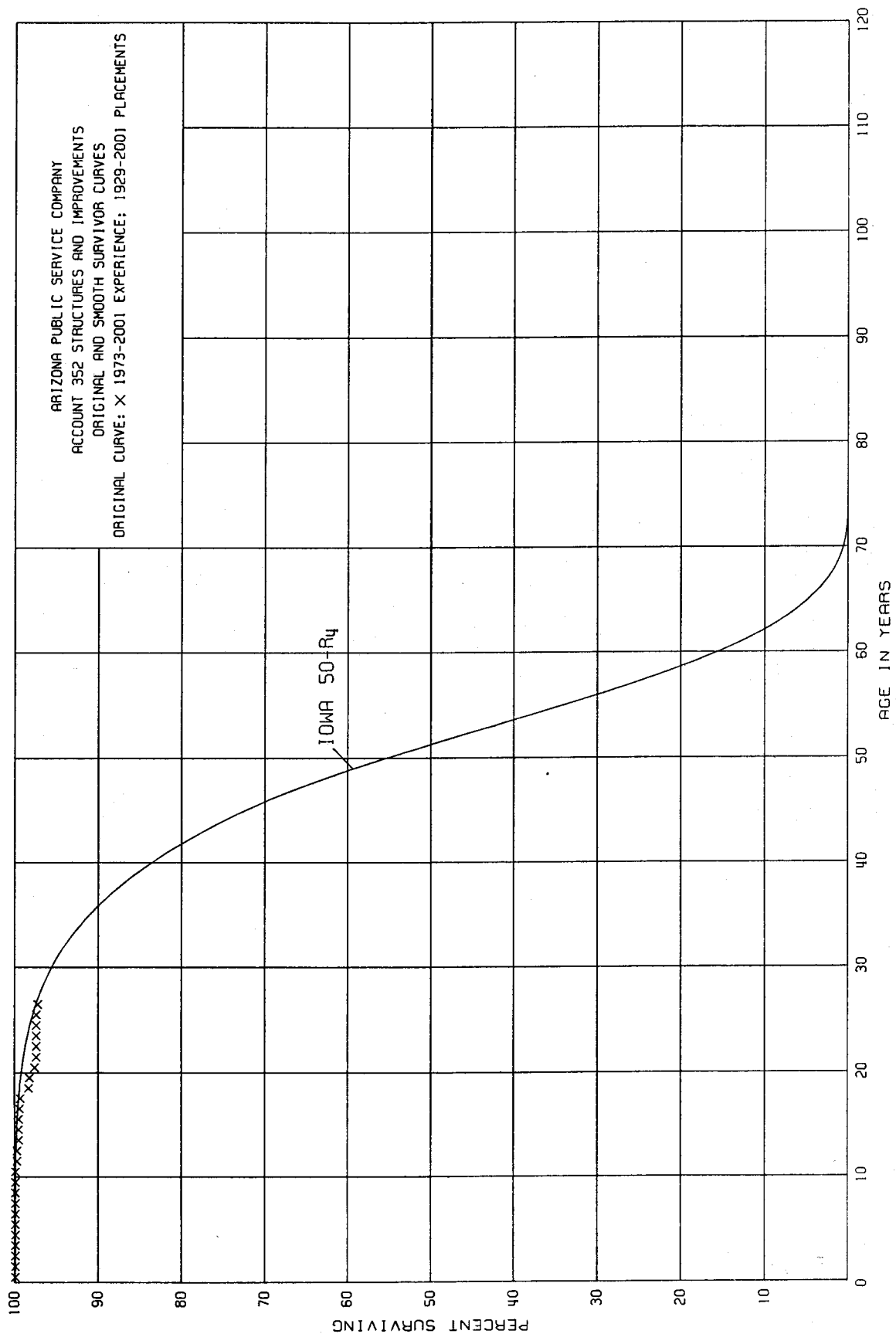
ACCOUNT 346 MISCELLANEOUS POWER PLANT EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1943-2000

EXPERIENCE BAND 1973-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	5,713,150		0.0000	1.0000	100.00
0.5	5,828,344		0.0000	1.0000	100.00
1.5	4,949,355		0.0000	1.0000	100.00
2.5	4,911,576		0.0000	1.0000	100.00
3.5	4,838,833		0.0000	1.0000	100.00
4.5	4,809,776	20,473	0.0043	0.9957	100.00
5.5	4,779,060		0.0000	1.0000	99.57
6.5	4,778,528	25,000	0.0052	0.9948	99.57
7.5	4,400,351		0.0000	1.0000	99.05
8.5	2,824,725		0.0000	1.0000	99.05
9.5	2,779,889	115,715	0.0416	0.9584	99.05
10.5	2,578,508		0.0000	1.0000	94.93
11.5	2,681,516		0.0000	1.0000	94.93
12.5	2,600,934		0.0000	1.0000	94.93
13.5	2,441,849		0.0000	1.0000	94.93
14.5	2,339,557	10,650	0.0046	0.9954	94.93
15.5	2,045,367	6,357	0.0031	0.9969	94.49
16.5	1,734,538	8,194	0.0047	0.9953	94.20
17.5	1,527,704		0.0000	1.0000	93.76
18.5	1,186,361		0.0000	1.0000	93.76
19.5	1,310,263	7,301	0.0056	0.9944	93.76
20.5	1,286,758		0.0000	1.0000	93.23
21.5	1,282,662		0.0000	1.0000	93.23
22.5	1,254,702		0.0000	1.0000	93.23
23.5	1,230,185		0.0000	1.0000	93.23
24.5	1,166,393	14,994	0.0129	0.9871	93.23
25.5	1,105,620		0.0000	1.0000	92.03
26.5	1,095,835		0.0000	1.0000	92.03
27.5	857,374		0.0000	1.0000	92.03
28.5	119,715		0.0000	1.0000	92.03
29.5	18,488		0.0000	1.0000	92.03
30.5					92.03



ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 352 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1929-2001

EXPERIENCE BAND 1973-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	28,467,995		0.0000	1.0000	100.00
0.5	26,254,568	7,769	0.0003	0.9997	100.00
1.5	26,580,208		0.0000	1.0000	99.97
2.5	27,111,935		0.0000	1.0000	99.97
3.5	26,836,234		0.0000	1.0000	99.97
4.5	21,065,217		0.0000	1.0000	99.97
5.5	18,901,530	9,900	0.0005	0.9995	99.97
6.5	19,010,109		0.0000	1.0000	99.92
7.5	18,654,556	79	0.0000	1.0000	99.92
8.5	18,609,600	11,050	0.0006	0.9994	99.92
9.5	18,662,676		0.0000	1.0000	99.86
10.5	18,889,682	28,471	0.0015	0.9985	99.86
11.5	18,079,319		0.0000	1.0000	99.71
12.5	16,482,606	33,007	0.0020	0.9980	99.71
13.5	15,849,837	5,018	0.0003	0.9997	99.51
14.5	14,867,600	1,202	0.0001	0.9999	99.48
15.5	8,674,095	4,597	0.0005	0.9995	99.47
16.5	8,476,737	10,850	0.0013	0.9987	99.42
17.5	6,402,557	65,749	0.0103	0.9897	99.29
18.5	6,259,790	7,248	0.0012	0.9988	98.27
19.5	6,096,030	31,645	0.0052	0.9948	98.15
20.5	5,754,624	11,600	0.0020	0.9980	97.64
21.5	4,313,728		0.0000	1.0000	97.44
22.5	3,975,224	272	0.0001	0.9999	97.44
23.5	2,965,363	1,657	0.0006	0.9994	97.43
24.5	2,791,496	194	0.0001	0.9999	97.37
25.5	2,489,649	4,406	0.0018	0.9982	97.36
26.5	1,279,092		0.0000	1.0000	97.18
27.5	1,154,977	12,265	0.0106	0.9894	97.18
28.5	1,059,817		0.0000	1.0000	96.15
29.5	1,007,355		0.0000	1.0000	96.15
30.5	964,280	66	0.0001	0.9999	96.15
31.5	939,582	117	0.0001	0.9999	96.14
32.5	1,273,264		0.0000	1.0000	96.13
33.5	959,535		0.0000	1.0000	96.13
34.5	933,724	27,657	0.0296	0.9704	96.13
35.5	904,159		0.0000	1.0000	93.28
36.5	836,302		0.0000	1.0000	93.28
37.5	833,099	2,782	0.0033	0.9967	93.28
38.5	631,667		0.0000	1.0000	92.97

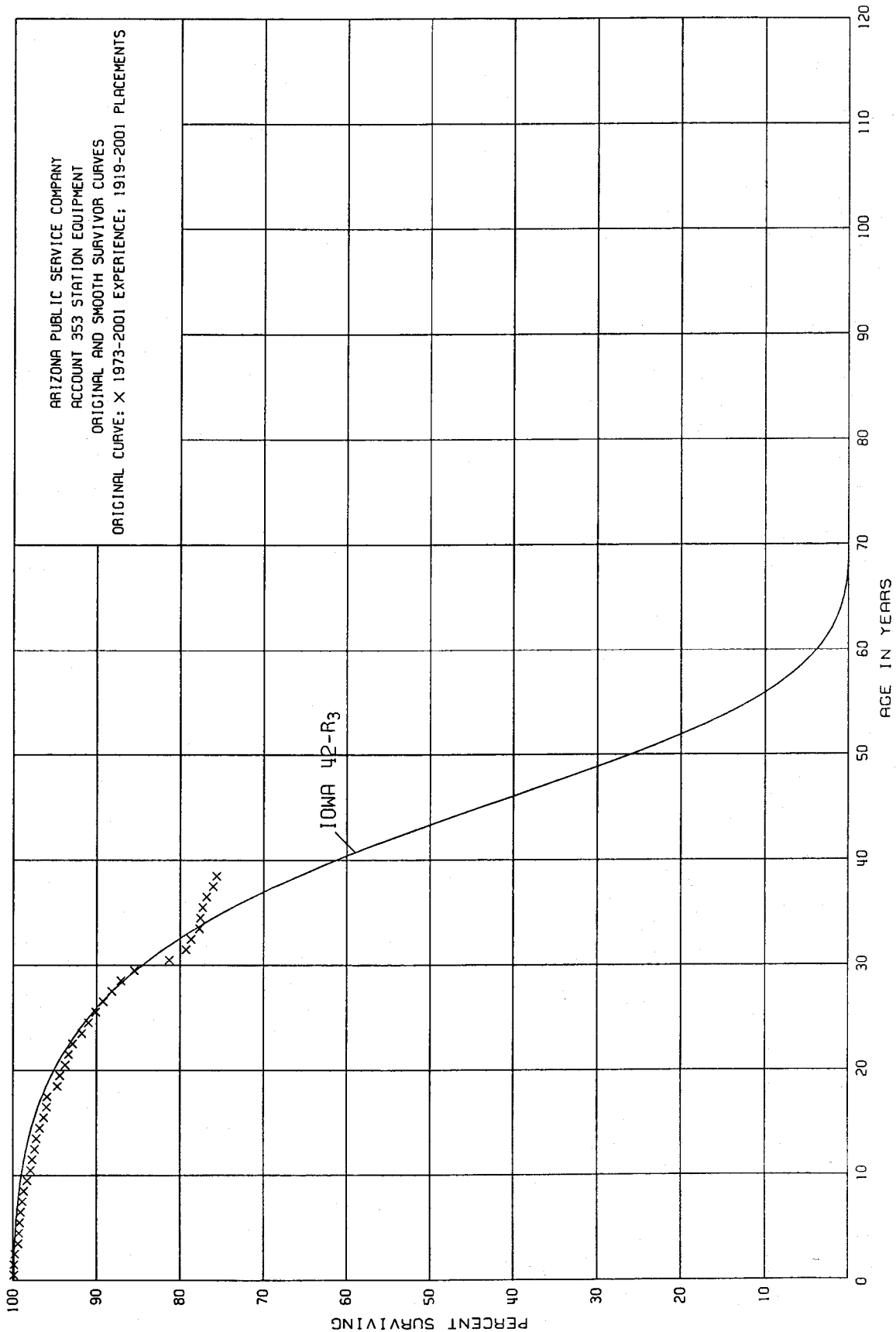
ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 352 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1929-2001

EXPERIENCE BAND 1973-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	389,213	156	0.0004	0.9996	92.97
40.5	370,728		0.0000	1.0000	92.93
41.5	338,367		0.0000	1.0000	92.93
42.5	183,208	9,127	0.0498	0.9502	92.93
43.5	152,656		0.0000	1.0000	88.30
44.5	94,612		0.0000	1.0000	88.30
45.5	94,612		0.0000	1.0000	88.30
46.5	93,078		0.0000	1.0000	88.30
47.5	51,509		0.0000	1.0000	88.30
48.5	26,667		0.0000	1.0000	88.30
49.5	26,667		0.0000	1.0000	88.30
50.5	26,737		0.0000	1.0000	88.30
51.5	26,737		0.0000	1.0000	88.30
52.5	26,737		0.0000	1.0000	88.30
53.5	26,737		0.0000	1.0000	88.30
54.5	26,737		0.0000	1.0000	88.30
55.5	26,737		0.0000	1.0000	88.30
56.5	26,737		0.0000	1.0000	88.30
57.5	26,737		0.0000	1.0000	88.30
58.5	26,737		0.0000	1.0000	88.30
59.5	16,946		0.0000	1.0000	88.30
60.5	16,946		0.0000	1.0000	88.30
61.5	16,946		0.0000	1.0000	88.30
62.5	14,561		0.0000	1.0000	88.30
63.5	14,612		0.0000	1.0000	88.30
64.5	14,612		0.0000	1.0000	88.30
65.5	14,612		0.0000	1.0000	88.30
66.5	14,612		0.0000	1.0000	88.30
67.5	14,612		0.0000	1.0000	88.30
68.5	14,612		0.0000	1.0000	88.30
69.5	14,612		0.0000	1.0000	88.30
70.5	14,612		0.0000	1.0000	88.30
71.5	14,612		0.0000	1.0000	88.30
72.5					88.30



ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 353 STATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1919-2001

EXPERIENCE BAND 1973-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	368,452,376	18,288	0.0000	1.0000	100.00
0.5	345,480,079	140,119	0.0004	0.9996	100.00
1.5	347,754,261	520,483	0.0015	0.9985	99.96
2.5	334,090,000	1,524,489	0.0046	0.9954	99.81
3.5	310,270,616	193,644	0.0006	0.9994	99.35
4.5	312,289,129	296,791	0.0010	0.9990	99.29
5.5	265,258,861	288,830	0.0011	0.9989	99.19
6.5	261,834,550	546,286	0.0021	0.9979	99.08
7.5	259,154,205	529,667	0.0020	0.9980	98.87
8.5	259,853,393	977,983	0.0038	0.9962	98.67
9.5	264,014,758	1,103,684	0.0042	0.9958	98.30
10.5	260,242,548	594,177	0.0023	0.9977	97.89
11.5	248,900,394	601,781	0.0024	0.9976	97.66
12.5	238,746,939	619,765	0.0026	0.9974	97.43
13.5	220,549,581	961,935	0.0044	0.9956	97.18
14.5	212,504,858	964,319	0.0045	0.9955	96.75
15.5	174,471,874	487,755	0.0028	0.9972	96.31
16.5	171,505,669	265,058	0.0015	0.9985	96.04
17.5	160,786,968	2,090,679	0.0130	0.9870	95.90
18.5	155,887,160	460,886	0.0030	0.9970	94.65
19.5	148,692,218	872,651	0.0059	0.9941	94.37
20.5	133,723,023	595,299	0.0045	0.9955	93.81
21.5	107,544,663	525,529	0.0049	0.9951	93.39
22.5	99,179,766	1,174,942	0.0118	0.9882	92.93
23.5	71,302,084	663,671	0.0093	0.9907	91.83
24.5	68,186,659	656,072	0.0096	0.9904	90.98
25.5	63,204,270	617,948	0.0098	0.9902	90.11
26.5	48,988,350	574,687	0.0117	0.9883	89.23
27.5	43,968,744	557,347	0.0127	0.9873	88.19
28.5	38,986,769	721,601	0.0185	0.9815	87.07
29.5	36,176,855	1,746,506	0.0483	0.9517	85.46
30.5	28,326,319	719,779	0.0254	0.9746	81.33
31.5	25,297,075	175,935	0.0070	0.9930	79.26
32.5	22,642,601	302,667	0.0134	0.9866	78.71
33.5	21,946,352	24,942	0.0011	0.9989	77.66
34.5	21,374,925	85,668	0.0040	0.9960	77.57
35.5	20,113,071	112,987	0.0056	0.9944	77.26
36.5	20,049,619	220,871	0.0110	0.9890	76.83
37.5	19,483,173	94,631	0.0049	0.9951	75.98
38.5	13,585,237	66,621	0.0049	0.9951	75.61

ARIZONA PUBLIC SERVICE COMPANY

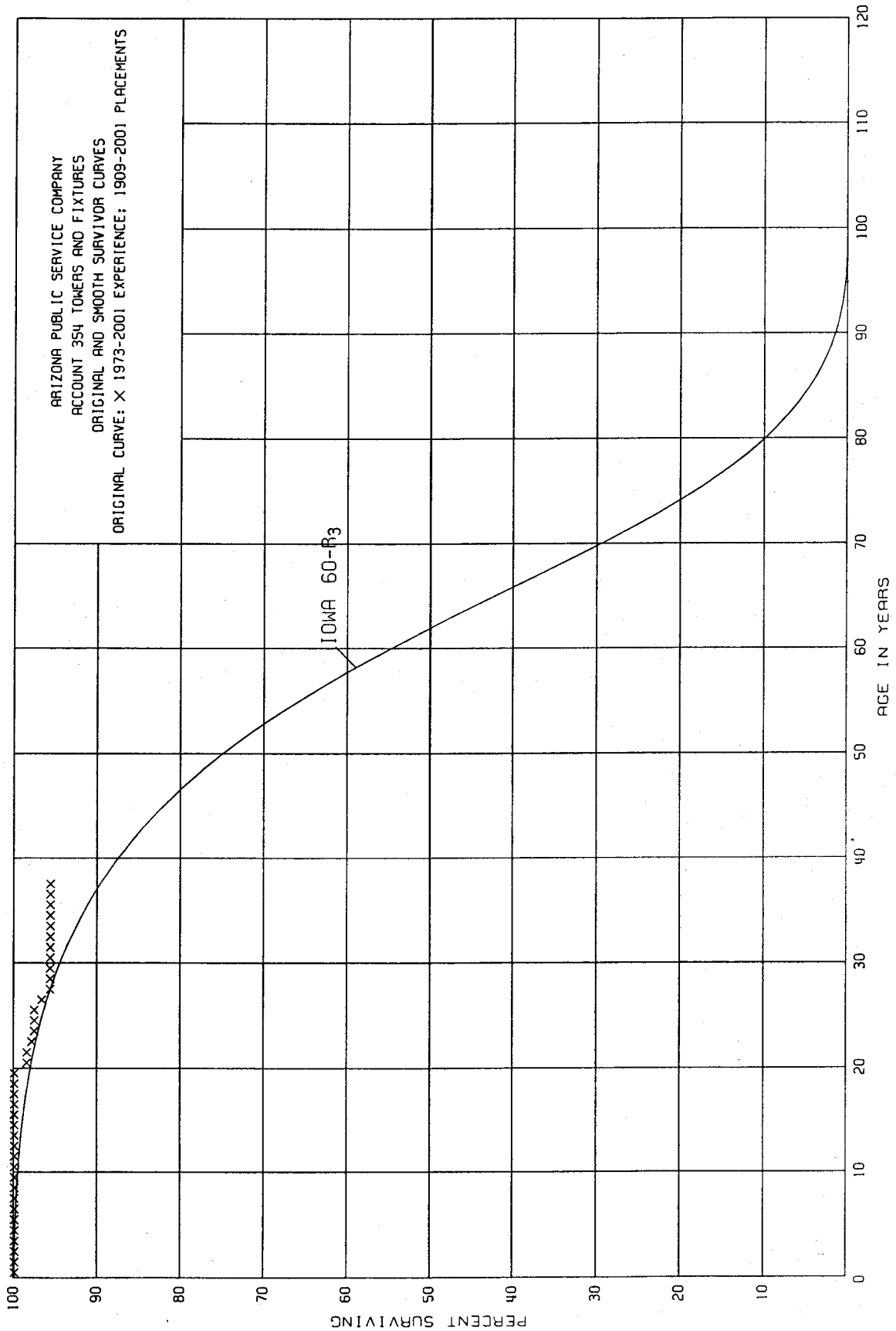
ACCOUNT 353 STATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1919-2001

EXPERIENCE BAND 1973-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	10,185,346	50,667	0.0050	0.9950	75.24
40.5	9,920,520	129,075	0.0130	0.9870	74.86
41.5	7,926,859	28,960	0.0037	0.9963	73.89
42.5	6,614,157	27,419	0.0041	0.9959	73.62
43.5	5,503,425	1	0.0000	1.0000	73.32
44.5	4,901,188	3,678	0.0008	0.9992	73.32
45.5	4,645,966	24,103	0.0052	0.9948	73.26
46.5	3,127,122	554	0.0002	0.9998	72.88
47.5	1,581,305	11,925	0.0075	0.9925	72.87
48.5	1,260,913	2,786	0.0022	0.9978	72.32
49.5	829,920	17,938	0.0216	0.9784	72.16
50.5	811,982	1,343	0.0017	0.9983	70.60
51.5	585,728		0.0000	1.0000	70.48
52.5	324,595	79	0.0002	0.9998	70.48
53.5	356,669	78	0.0002	0.9998	70.47
54.5	356,591	94,725	0.2656	0.7344	70.46
55.5	253,194	36,425	0.1439	0.8561	51.75
56.5	126,759	7,915	0.0624	0.9376	44.30
57.5	118,844		0.0000	1.0000	41.54
58.5	118,844		0.0000	1.0000	41.54
59.5	118,844		0.0000	1.0000	41.54
60.5	118,844		0.0000	1.0000	41.54
61.5	117,542		0.0000	1.0000	41.54
62.5	38,162		0.0000	1.0000	41.54
63.5	34,387		0.0000	1.0000	41.54
64.5	29,599	1,757	0.0594	0.9406	41.54
65.5	22,888		0.0000	1.0000	39.07
66.5	22,888		0.0000	1.0000	39.07
67.5	22,888		0.0000	1.0000	39.07
68.5	22,888		0.0000	1.0000	39.07
69.5	22,888		0.0000	1.0000	39.07
70.5	22,888		0.0000	1.0000	39.07
71.5	22,888		0.0000	1.0000	39.07
72.5					39.07



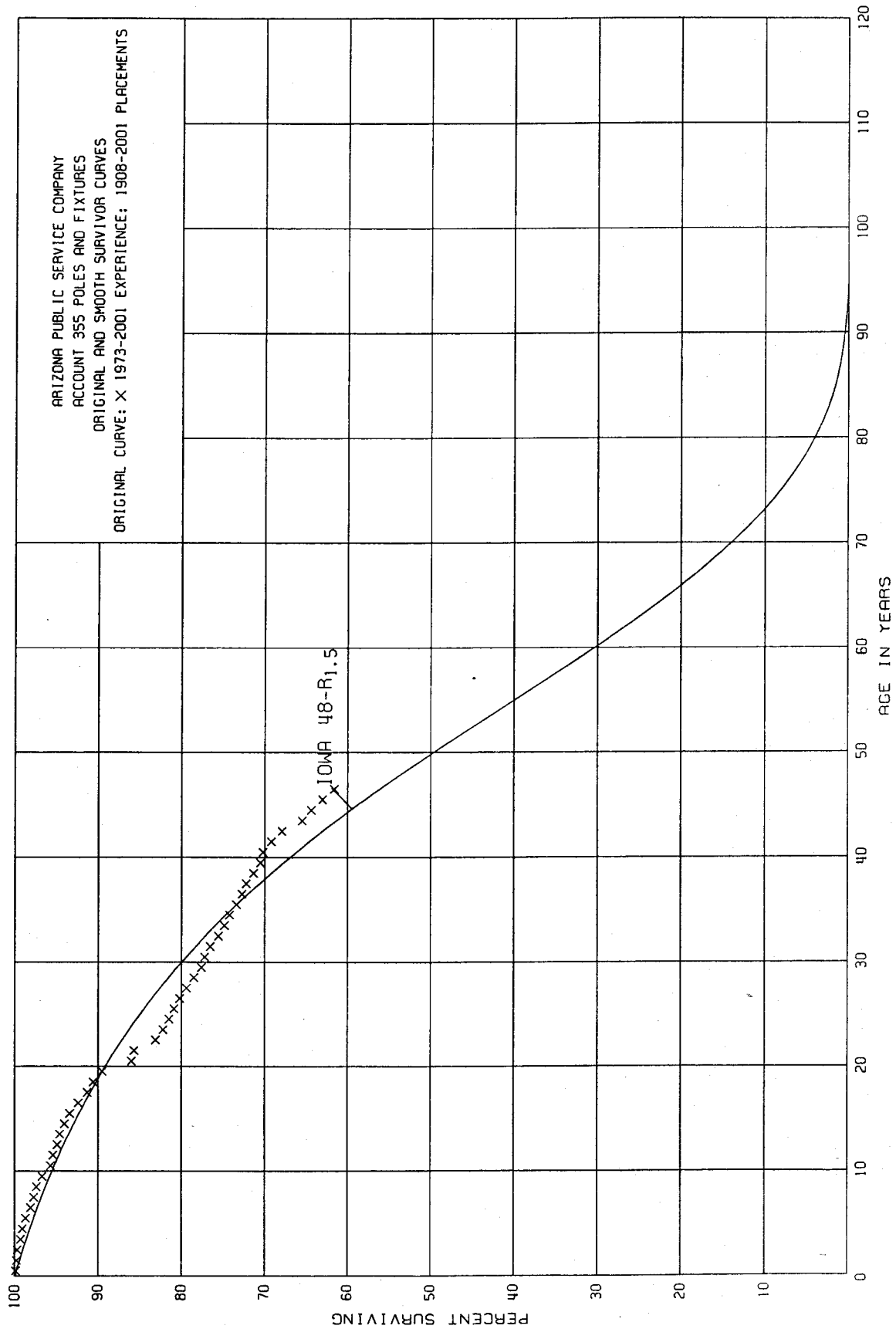
ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 354 TOWERS AND FIXTURES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1909-2001

EXPERIENCE BAND 1973-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	61,282,768		0.0000	1.0000	100.00
0.5	60,033,811		0.0000	1.0000	100.00
1.5	65,785,705		0.0000	1.0000	100.00
2.5	65,785,728		0.0000	1.0000	100.00
3.5	79,371,298		0.0000	1.0000	100.00
4.5	80,017,191		0.0000	1.0000	100.00
5.5	71,336,663		0.0000	1.0000	100.00
6.5	72,149,595		0.0000	1.0000	100.00
7.5	71,886,969		0.0000	1.0000	100.00
8.5	73,473,753		0.0000	1.0000	100.00
9.5	77,296,910		0.0000	1.0000	100.00
10.5	83,511,224	23,869	0.0003	0.9997	100.00
11.5	83,547,400		0.0000	1.0000	99.97
12.5	80,325,843		0.0000	1.0000	99.97
13.5	85,164,094		0.0000	1.0000	99.97
14.5	85,169,411		0.0000	1.0000	99.97
15.5	76,927,338		0.0000	1.0000	99.97
16.5	76,573,919	75,717	0.0010	0.9990	99.97
17.5	73,680,709		0.0000	1.0000	99.87
18.5	73,853,024		0.0000	1.0000	99.87
19.5	71,540,980	1,084,592	0.0152	0.9848	99.87
20.5	70,443,024		0.0000	1.0000	98.35
21.5	69,063,346	381,457	0.0055	0.9945	98.35
22.5	55,126,632	204,908	0.0037	0.9963	97.81
23.5	21,089,267		0.0000	1.0000	97.45
24.5	20,806,390		0.0000	1.0000	97.45
25.5	18,304,419	168,052	0.0092	0.9908	97.45
26.5	15,979,774	150,328	0.0094	0.9906	96.55
27.5	12,479,410	222	0.0000	1.0000	95.64
28.5	12,140,972		0.0000	1.0000	95.64
29.5	11,339,967		0.0000	1.0000	95.64
30.5	13,255,256	8,154	0.0006	0.9994	95.64
31.5	13,247,102		0.0000	1.0000	95.58
32.5	13,245,470	1,002	0.0001	0.9999	95.58
33.5	12,612,602	707	0.0001	0.9999	95.57
34.5	12,611,895	707	0.0001	0.9999	95.56
35.5	12,254,872		0.0000	1.0000	95.55
36.5	12,254,872		0.0000	1.0000	95.55
37.5	11,010,170		0.0000	1.0000	95.55
38.5	8,324,749		0.0000	1.0000	95.55



ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 355 POLES AND FIXTURES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1908-2001

EXPERIENCE BAND 1973-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	164,144,540	72,225	0.0004	0.9996	100.00
0.5	144,644,782	232,894	0.0016	0.9984	99.96
1.5	138,212,981	135,623	0.0010	0.9990	99.80
2.5	126,925,913	566,143	0.0045	0.9955	99.70
3.5	121,289,304	179,349	0.0015	0.9985	99.25
4.5	118,257,352	423,955	0.0036	0.9964	99.10
5.5	111,116,631	733,488	0.0066	0.9934	98.74
6.5	103,873,355	391,905	0.0038	0.9962	98.09
7.5	103,190,689	375,260	0.0036	0.9964	97.72
8.5	98,795,154	727,875	0.0074	0.9926	97.37
9.5	93,284,501	926,023	0.0099	0.9901	96.65
10.5	88,484,348	301,393	0.0034	0.9966	95.69
11.5	83,762,665	375,454	0.0045	0.9955	95.36
12.5	70,956,713	239,637	0.0034	0.9966	94.93
13.5	61,276,994	423,298	0.0069	0.9931	94.61
14.5	53,894,621	300,091	0.0056	0.9944	93.96
15.5	35,846,557	383,474	0.0107	0.9893	93.43
16.5	33,410,021	405,775	0.0121	0.9879	92.43
17.5	31,151,992	259,907	0.0083	0.9917	91.31
18.5	29,918,742	340,405	0.0114	0.9886	90.55
19.5	24,578,628	956,734	0.0389	0.9611	89.52
20.5	22,937,606	101,462	0.0044	0.9956	86.04
21.5	20,959,452	628,733	0.0300	0.9700	85.66
22.5	19,361,241	201,739	0.0104	0.9896	83.09
23.5	18,187,504	165,740	0.0091	0.9909	82.23
24.5	17,021,507	128,025	0.0075	0.9925	81.48
25.5	16,384,336	145,652	0.0089	0.9911	80.87
26.5	16,159,138	150,341	0.0093	0.9907	80.15
27.5	15,820,483	173,327	0.0110	0.9890	79.40
28.5	14,774,755	172,932	0.0117	0.9883	78.53
29.5	14,142,799	78,693	0.0056	0.9944	77.61
30.5	12,492,043	116,246	0.0093	0.9907	77.18
31.5	12,941,075	158,676	0.0123	0.9877	76.46
32.5	11,719,099	120,094	0.0102	0.9898	75.52
33.5	11,129,314	86,059	0.0077	0.9923	74.75
34.5	10,974,824	120,950	0.0110	0.9890	74.17
35.5	10,742,451	100,214	0.0093	0.9907	73.35
36.5	9,406,763	64,275	0.0068	0.9932	72.67
37.5	8,986,755	106,205	0.0118	0.9882	72.18
38.5	8,852,247	105,849	0.0120	0.9880	71.33

ARIZONA PUBLIC SERVICE COMPANY

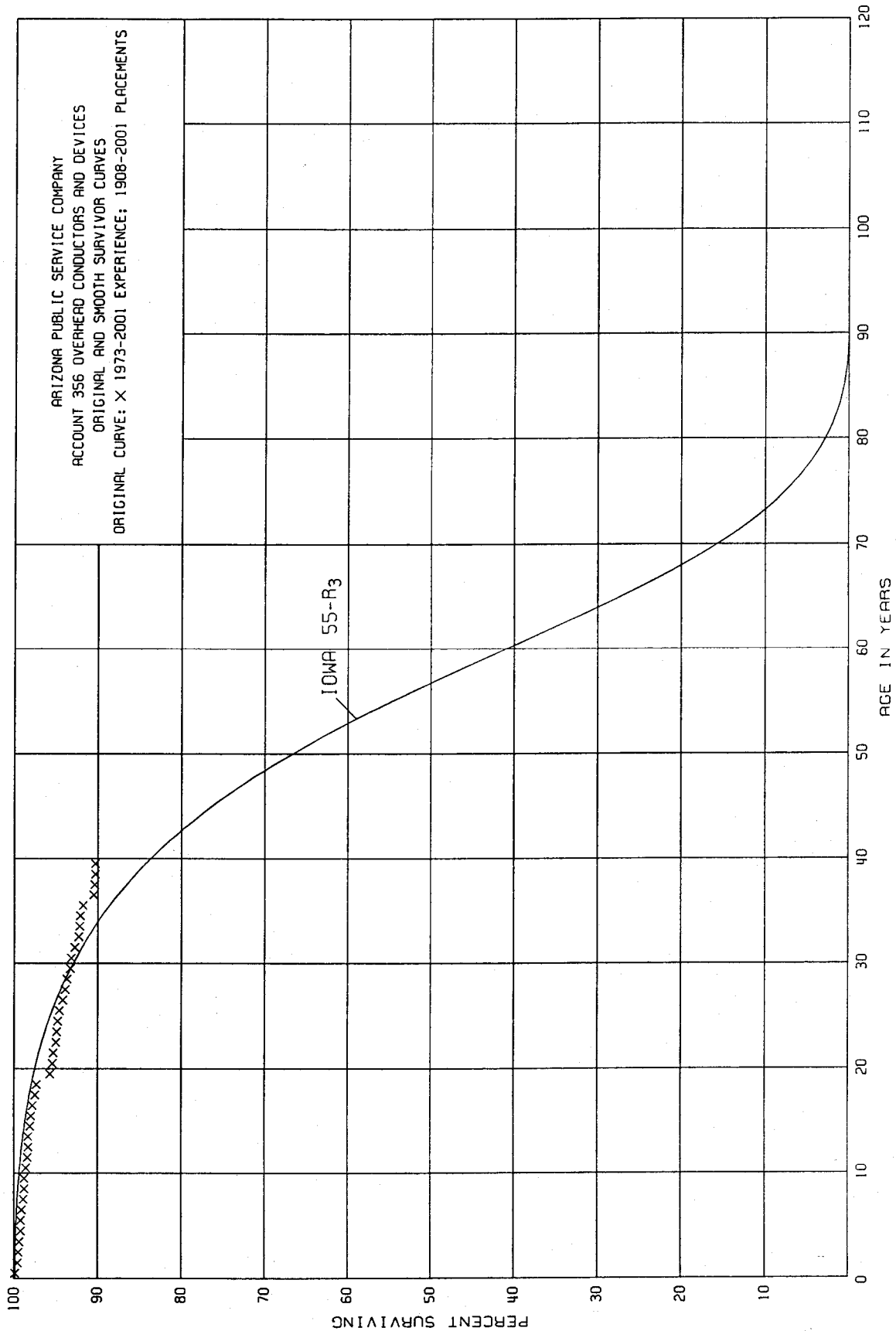
ACCOUNT 355 POLES AND FIXTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1908-2001

EXPERIENCE BAND 1973-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	8,608,626	29,539	0.0034	0.9966	70.47
40.5	5,523,642	78,333	0.0142	0.9858	70.23
41.5	5,380,260	104,272	0.0194	0.9806	69.23
42.5	5,062,293	180,505	0.0357	0.9643	67.89
43.5	2,555,869	41,059	0.0161	0.9839	65.47
44.5	2,346,574	52,793	0.0225	0.9775	64.42
45.5	2,134,195	45,287	0.0212	0.9788	62.97
46.5	1,481,506	15,216	0.0103	0.9897	61.64
47.5	1,408,839	96,415	0.0684	0.9316	61.01
48.5	544,385	69,920	0.1284	0.8716	56.84
49.5	415,478	80,678	0.1942	0.8058	49.54
50.5	334,800	1,432	0.0043	0.9957	39.92
51.5	333,368	6,158	0.0185	0.9815	39.75
52.5	315,819	20,390	0.0646	0.9354	39.01
53.5	97,778	810	0.0083	0.9917	36.49
54.5	96,968	12,433	0.1282	0.8718	36.19
55.5	4,734	2,496	0.5272	0.4728	31.55
56.5	2,382	48	0.0202	0.9798	14.92
57.5	2,334		0.0000	1.0000	14.62
58.5	2,334		0.0000	1.0000	14.62
59.5	2,334	830	0.3556	0.6444	14.62
60.5	1,504		0.0000	1.0000	9.42
61.5	1,504	68	0.0452	0.9548	9.42
62.5	1,669		0.0000	1.0000	8.99
63.5	34,899	1,292	0.0370	0.9630	8.99
64.5	34,444		0.0000	1.0000	8.66
65.5	34,444		0.0000	1.0000	8.66
66.5	34,444	25	0.0007	0.9993	8.66
67.5	34,419	148	0.0043	0.9957	8.65
68.5	34,271		0.0000	1.0000	8.61
69.5	34,271	208	0.0061	0.9939	8.61
70.5	34,063	110	0.0032	0.9968	8.56
71.5	33,953	144	0.0042	0.9958	8.53
72.5	33,809	406	0.0120	0.9880	8.49
73.5	33,403		0.0000	1.0000	8.39
74.5	33,403	553	0.0166	0.9834	8.39
75.5	32,850	127	0.0039	0.9961	8.25
76.5	32,723	284	0.0087	0.9913	8.22
77.5	32,439		0.0000	1.0000	8.15
78.5	32,439		0.0000	1.0000	8.15



ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 356 OVERHEAD CONDUCTORS AND DEVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1908-2001

EXPERIENCE BAND 1973-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	161,164,840	89,689	0.0006	0.9994	100.00
0.5	142,299,838	429,577	0.0030	0.9970	99.94
1.5	129,389,680	156,195	0.0012	0.9988	99.64
2.5	127,573,838	180,268	0.0014	0.9986	99.52
3.5	132,353,753	199,446	0.0015	0.9985	99.38
4.5	133,176,149	59,889	0.0004	0.9996	99.23
5.5	125,775,390	140,068	0.0011	0.9989	99.19
6.5	124,571,565	278,500	0.0022	0.9978	99.08
7.5	125,004,348	55,843	0.0004	0.9996	98.86
8.5	123,604,900	46,575	0.0004	0.9996	98.82
9.5	121,883,816	267,713	0.0022	0.9978	98.78
10.5	132,971,039	168,831	0.0013	0.9987	98.56
11.5	132,047,480	131,244	0.0010	0.9990	98.43
12.5	131,531,620	69,865	0.0005	0.9995	98.33
13.5	116,894,957	250,857	0.0021	0.9979	98.28
14.5	111,085,623	110,339	0.0010	0.9990	98.07
15.5	87,416,974	186,663	0.0021	0.9979	97.97
16.5	86,494,434	200,471	0.0023	0.9977	97.76
17.5	84,334,339	199,664	0.0024	0.9976	97.54
18.5	83,333,200	1,365,910	0.0164	0.9836	97.31
19.5	74,048,027	235,104	0.0032	0.9968	95.71
20.5	72,663,438	66,265	0.0009	0.9991	95.40
21.5	71,172,109	199,996	0.0028	0.9972	95.31
22.5	70,267,874	105,765	0.0015	0.9985	95.04
23.5	43,149,363	44,055	0.0010	0.9990	94.90
24.5	41,548,984	92,115	0.0022	0.9978	94.81
25.5	36,030,621	161,377	0.0045	0.9955	94.60
26.5	35,405,060	92,307	0.0026	0.9974	94.17
27.5	31,989,441	89,333	0.0028	0.9972	93.93
28.5	30,657,799	116,301	0.0038	0.9962	93.67
29.5	32,428,492	21,407	0.0007	0.9993	93.31
30.5	31,925,442	140,315	0.0044	0.9956	93.24
31.5	30,920,129	176,670	0.0057	0.9943	92.83
32.5	29,683,022	45,056	0.0015	0.9985	92.30
33.5	28,567,426	30,320	0.0011	0.9989	92.16
34.5	28,306,146	67,934	0.0024	0.9976	92.06
35.5	28,052,448	399,561	0.0142	0.9858	91.84
36.5	26,942,266	50,270	0.0019	0.9981	90.54
37.5	25,141,699	16,221	0.0006	0.9994	90.37
38.5	21,058,398	11,392	0.0005	0.9995	90.32

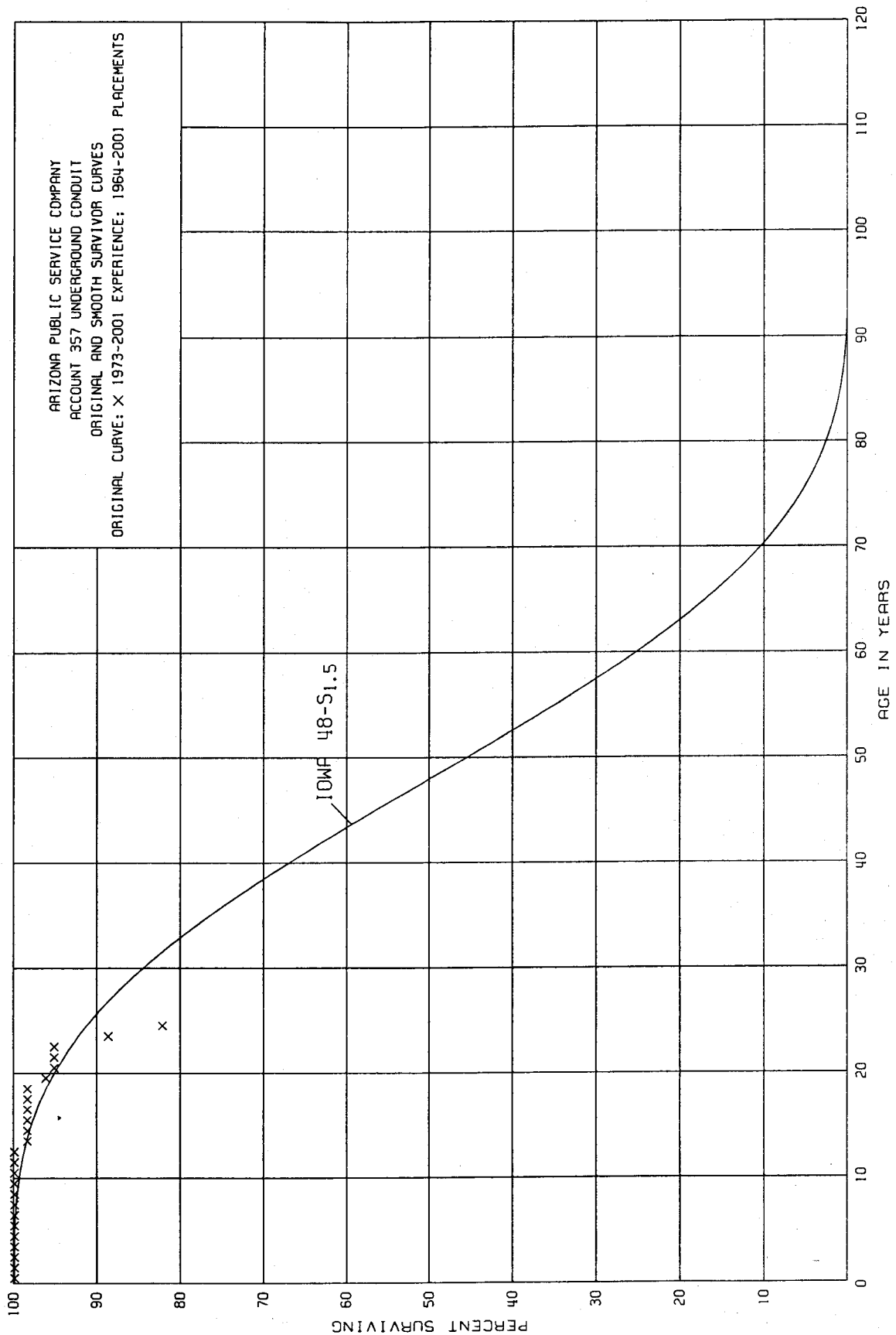
ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 356 OVERHEAD CONDUCTORS AND DEVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1908-2001

EXPERIENCE BAND 1973-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	9,089,463	12,801	0.0014	0.9986	90.27
40.5	6,276,294	4,398	0.0007	0.9993	90.14
41.5	6,157,179	139,868	0.0227	0.9773	90.08
42.5	5,666,982	149,103	0.0263	0.9737	88.04
43.5	2,651,716	17,291	0.0065	0.9935	85.72
44.5	2,542,608	8,052	0.0032	0.9968	85.16
45.5	2,388,704	4,887	0.0020	0.9980	84.89
46.5	1,525,133	2,150	0.0014	0.9986	84.72
47.5	1,462,583	20,662	0.0141	0.9859	84.60
48.5	645,852	9,319	0.0144	0.9856	83.41
49.5	507,132	64,610	0.1274	0.8726	82.21
50.5	401,561		0.0000	1.0000	71.74
51.5	401,561	120	0.0003	0.9997	71.74
52.5	381,483	1,091	0.0029	0.9971	71.72
53.5	125,388		0.0000	1.0000	71.51
54.5	125,388		0.0000	1.0000	71.51
55.5	544		0.0000	1.0000	71.51
56.5	1,088		0.0000	1.0000	71.51
57.5	1,088		0.0000	1.0000	71.51
58.5	1,088		0.0000	1.0000	71.51
59.5	1,088		0.0000	1.0000	71.51
60.5	1,088		0.0000	1.0000	71.51
61.5	1,088		0.0000	1.0000	71.51
62.5	1,088		0.0000	1.0000	71.51
63.5	73,102		0.0000	1.0000	71.51
64.5	75,398	544	0.0072	0.9928	71.51
65.5	74,854		0.0000	1.0000	71.00
66.5	74,854		0.0000	1.0000	71.00
67.5	74,854	136	0.0018	0.9982	71.00
68.5	74,718		0.0000	1.0000	70.87
69.5	74,718		0.0000	1.0000	70.87
70.5	74,718	8	0.0001	0.9999	70.87
71.5	74,710	544	0.0073	0.9927	70.86
72.5	74,166		0.0000	1.0000	70.34
73.5	74,166		0.0000	1.0000	70.34
74.5	74,166	2,296	0.0310	0.9690	70.34
75.5	71,870		0.0000	1.0000	68.16
76.5	71,870		0.0000	1.0000	68.16
77.5	71,870		0.0000	1.0000	68.16
78.5	71,870		0.0000	1.0000	68.16



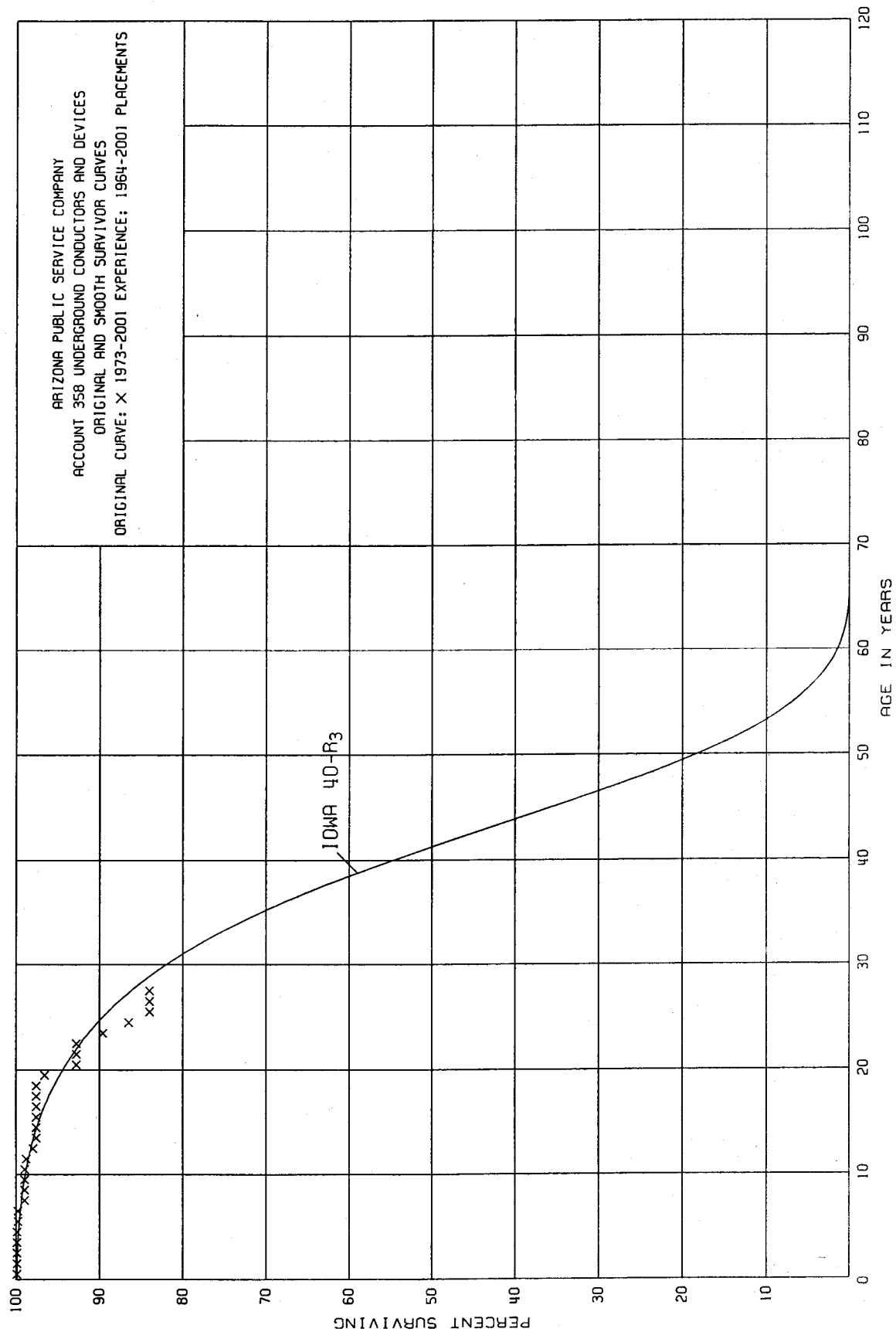
ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 357 UNDERGROUND CONDUIT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1964-2001

EXPERIENCE BAND 1973-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	9,570,238	76	0.0000	1.0000	100.00
0.5	9,301,167		0.0000	1.0000	100.00
1.5	8,726,288		0.0000	1.0000	100.00
2.5	7,499,684	175	0.0000	1.0000	100.00
3.5	7,484,143		0.0000	1.0000	100.00
4.5	6,643,742	1,664	0.0003	0.9997	100.00
5.5	6,642,811		0.0000	1.0000	99.97
6.5	5,416,795	5,252	0.0010	0.9990	99.97
7.5	5,411,543		0.0000	1.0000	99.87
8.5	5,507,646		0.0000	1.0000	99.87
9.5	5,507,646		0.0000	1.0000	99.87
10.5	5,507,646		0.0000	1.0000	99.87
11.5	5,124,447		0.0000	1.0000	99.87
12.5	5,124,131	82,131	0.0160	0.9840	99.87
13.5	5,008,690		0.0000	1.0000	98.27
14.5	4,959,741		0.0000	1.0000	98.27
15.5	4,958,643		0.0000	1.0000	98.27
16.5	4,448,280		0.0000	1.0000	98.27
17.5	3,334,966		0.0000	1.0000	98.27
18.5	5,212,745	116,469	0.0223	0.9777	98.27
19.5	4,332,871	43,825	0.0101	0.9899	96.08
20.5	4,289,046		0.0000	1.0000	95.11
21.5	4,283,156		0.0000	1.0000	95.11
22.5	4,252,078	290,970	0.0684	0.9316	95.11
23.5	3,961,108	290,994	0.0735	0.9265	88.60
24.5	3,670,114		0.0000	1.0000	82.09
25.5	3,670,114		0.0000	1.0000	82.09
26.5	3,670,114		0.0000	1.0000	82.09
27.5	313,198		0.0000	1.0000	82.09
28.5	313,198		0.0000	1.0000	82.09
29.5	313,198		0.0000	1.0000	82.09
30.5	298,173		0.0000	1.0000	82.09
31.5	298,173		0.0000	1.0000	82.09
32.5	298,173		0.0000	1.0000	82.09
33.5	298,173		0.0000	1.0000	82.09
34.5	298,173		0.0000	1.0000	82.09
35.5	96,103		0.0000	1.0000	82.09
36.5	96,103		0.0000	1.0000	82.09
37.5					82.09



ARIZONA PUBLIC SERVICE COMPANY

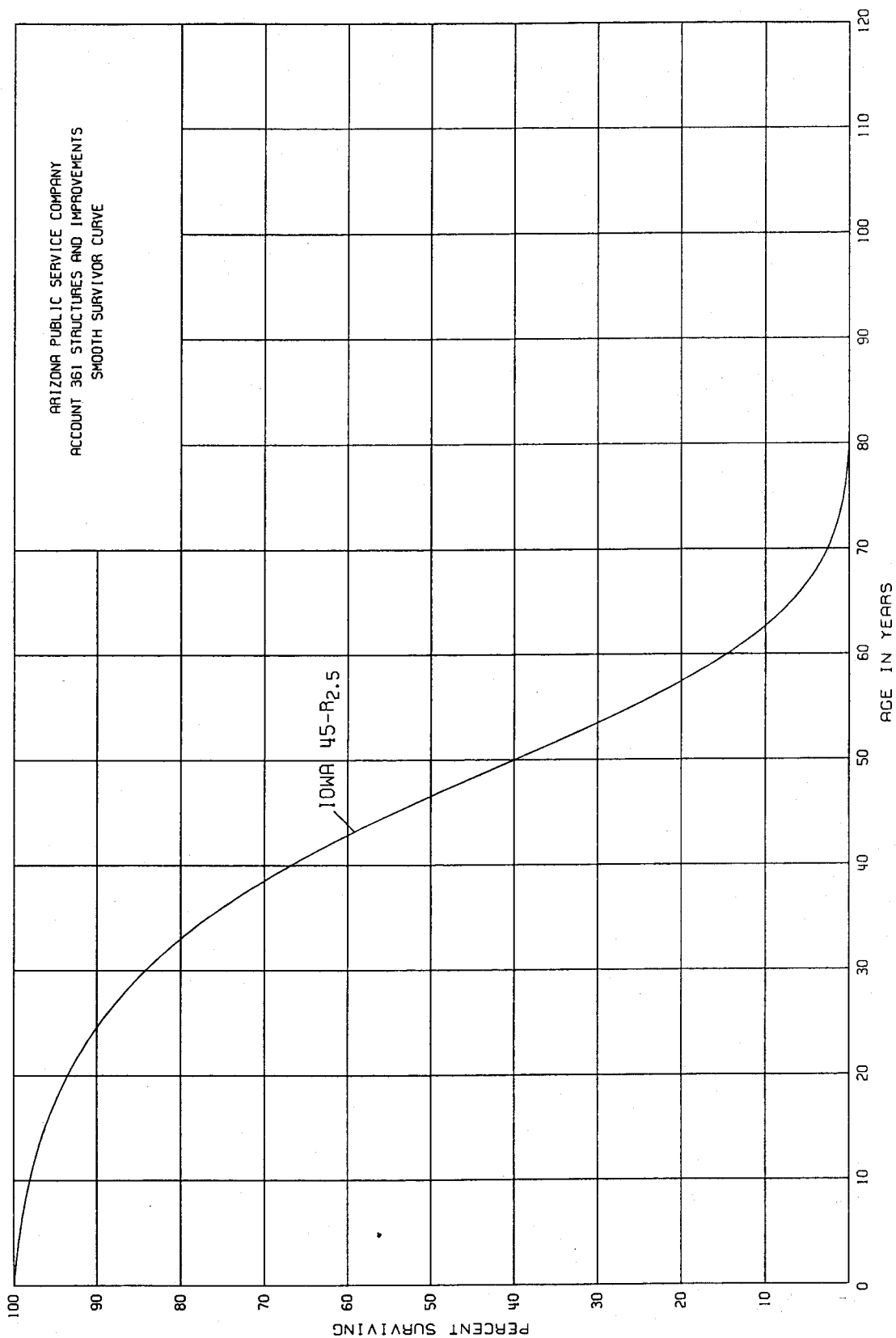
ACCOUNT 358 UNDERGROUND CONDUCTORS AND DEVICES

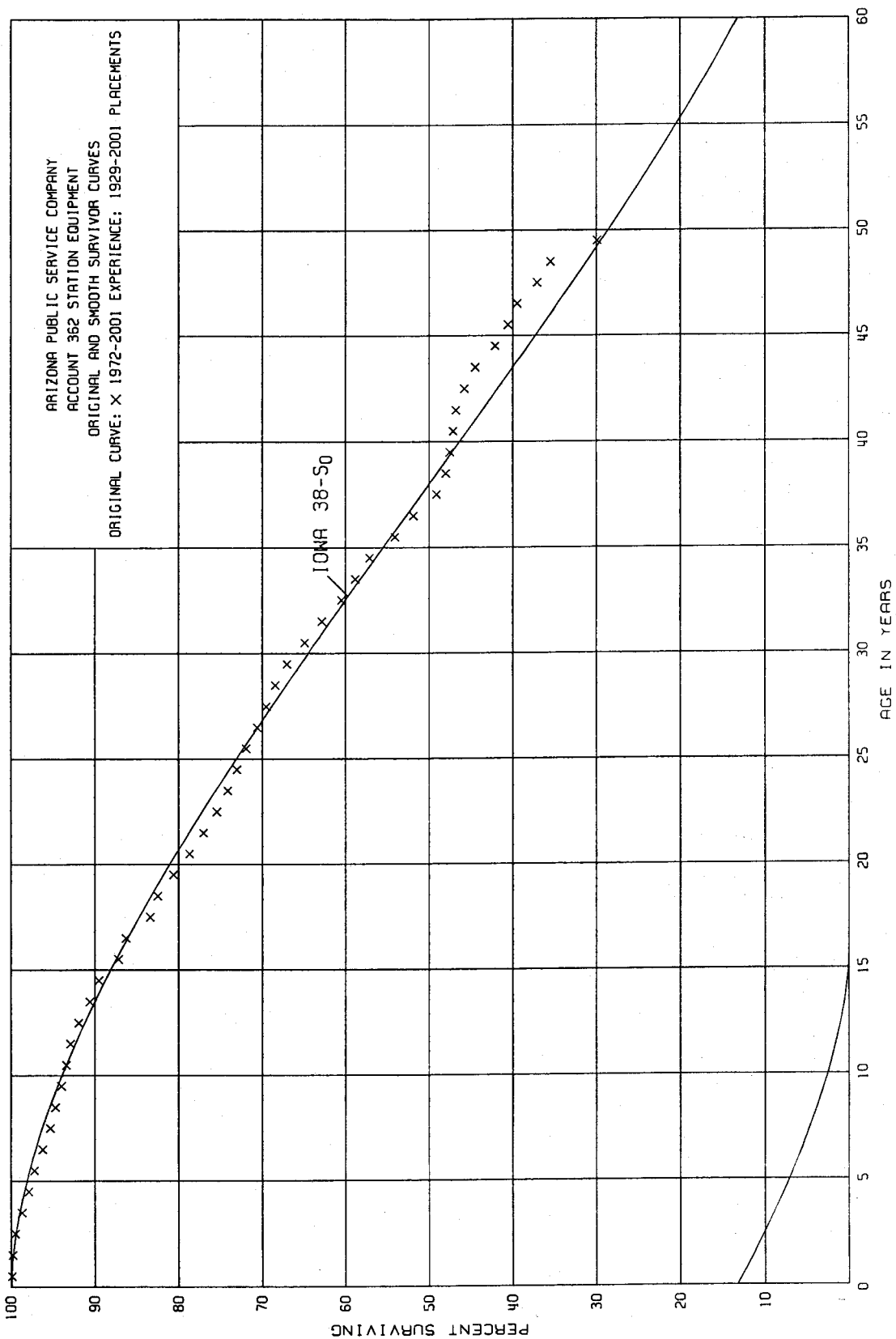
ORIGINAL LIFE TABLE

PLACEMENT BAND 1964-2001

EXPERIENCE BAND 1973-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	17,564,056	2,863	0.0002	0.9998	100.00
0.5	16,419,644	120	0.0000	1.0000	99.98
1.5	14,117,523		0.0000	1.0000	99.98
2.5	12,798,335		0.0000	1.0000	99.98
3.5	12,814,583		0.0000	1.0000	99.98
4.5	12,643,234	26,808	0.0021	0.9979	99.98
5.5	12,617,169		0.0000	1.0000	99.77
6.5	12,509,514	98,394	0.0079	0.9921	99.77
7.5	12,259,090		0.0000	1.0000	98.98
8.5	12,276,989	3,605	0.0003	0.9997	98.98
9.5	12,221,515		0.0000	1.0000	98.95
10.5	12,221,515	22,233	0.0018	0.9982	98.95
11.5	10,904,993	87,593	0.0080	0.9920	98.77
12.5	9,558,793	38,211	0.0040	0.9960	97.98
13.5	9,424,249		0.0000	1.0000	97.59
14.5	9,289,125		0.0000	1.0000	97.59
15.5	9,280,674		0.0000	1.0000	97.59
16.5	6,424,526		0.0000	1.0000	97.59
17.5	6,316,056		0.0000	1.0000	97.59
18.5	8,052,124	78,472	0.0097	0.9903	97.59
19.5	7,973,652	318,029	0.0399	0.9601	96.64
20.5	7,655,623		0.0000	1.0000	92.78
21.5	7,634,365		0.0000	1.0000	92.78
22.5	6,845,006	232,409	0.0340	0.9660	92.78
23.5	6,612,597	232,481	0.0352	0.9648	89.63
24.5	6,196,570	181,684	0.0293	0.9707	86.48
25.5	6,014,886		0.0000	1.0000	83.95
26.5	6,014,886		0.0000	1.0000	83.95
27.5	549,113		0.0000	1.0000	83.95
28.5	407,226		0.0000	1.0000	83.95
29.5	407,226		0.0000	1.0000	83.95
30.5	407,226		0.0000	1.0000	83.95
31.5	407,226		0.0000	1.0000	83.95
32.5	407,226		0.0000	1.0000	83.95
33.5	381,974		0.0000	1.0000	83.95
34.5	381,974		0.0000	1.0000	83.95
35.5	25,243		0.0000	1.0000	83.95
36.5	25,243		0.0000	1.0000	83.95
37.5					83.95





ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 362 STATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1929-2001

EXPERIENCE BAND 1972-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	199,344,754	177,990	0.0009	0.9991	100.00
0.5	178,081,270	147,196	0.0008	0.9992	99.91
1.5	165,522,817	502,378	0.0030	0.9970	99.83
2.5	147,870,341	1,203,609	0.0081	0.9919	99.53
3.5	136,257,373	1,189,561	0.0087	0.9913	98.72
4.5	126,617,470	909,192	0.0072	0.9928	97.86
5.5	118,474,901	1,120,093	0.0095	0.9905	97.16
6.5	113,120,004	1,072,910	0.0095	0.9905	96.24
7.5	109,496,590	680,161	0.0062	0.9938	95.33
8.5	104,877,529	783,480	0.0075	0.9925	94.74
9.5	102,526,677	710,965	0.0069	0.9931	94.03
10.5	97,981,491	482,632	0.0049	0.9951	93.38
11.5	93,461,221	1,057,650	0.0113	0.9887	92.92
12.5	88,500,208	1,276,246	0.0144	0.9856	91.87
13.5	77,721,411	945,262	0.0122	0.9878	90.55
14.5	72,093,865	1,783,206	0.0247	0.9753	89.45
15.5	63,337,919	714,976	0.0113	0.9887	87.24
16.5	56,469,117	1,898,274	0.0336	0.9664	86.25
17.5	50,414,742	544,031	0.0108	0.9892	83.35
18.5	45,990,965	1,032,964	0.0225	0.9775	82.45
19.5	41,308,470	993,697	0.0241	0.9759	80.59
20.5	37,926,914	785,951	0.0207	0.9793	78.65
21.5	34,583,366	723,661	0.0209	0.9791	77.02
22.5	28,818,961	494,980	0.0172	0.9828	75.41
23.5	25,426,849	400,439	0.0157	0.9843	74.11
24.5	23,220,345	351,690	0.0151	0.9849	72.95
25.5	21,960,536	369,372	0.0168	0.9832	71.85
26.5	20,744,469	329,382	0.0159	0.9841	70.64
27.5	17,934,541	277,262	0.0155	0.9845	69.52
28.5	16,149,741	352,576	0.0218	0.9782	68.44
29.5	13,350,848	411,573	0.0308	0.9692	66.95
30.5	12,270,631	390,234	0.0318	0.9682	64.89
31.5	10,281,012	375,033	0.0365	0.9635	62.83
32.5	9,104,977	260,616	0.0286	0.9714	60.54
33.5	8,206,028	238,495	0.0291	0.9709	58.81
34.5	7,220,118	374,505	0.0519	0.9481	57.10
35.5	6,089,072	253,729	0.0417	0.9583	54.14
36.5	5,589,143	304,304	0.0544	0.9456	51.88
37.5	5,140,971	111,666	0.0217	0.9783	49.06
38.5	4,616,831	43,830	0.0095	0.9905	48.00

ARIZONA PUBLIC SERVICE COMPANY

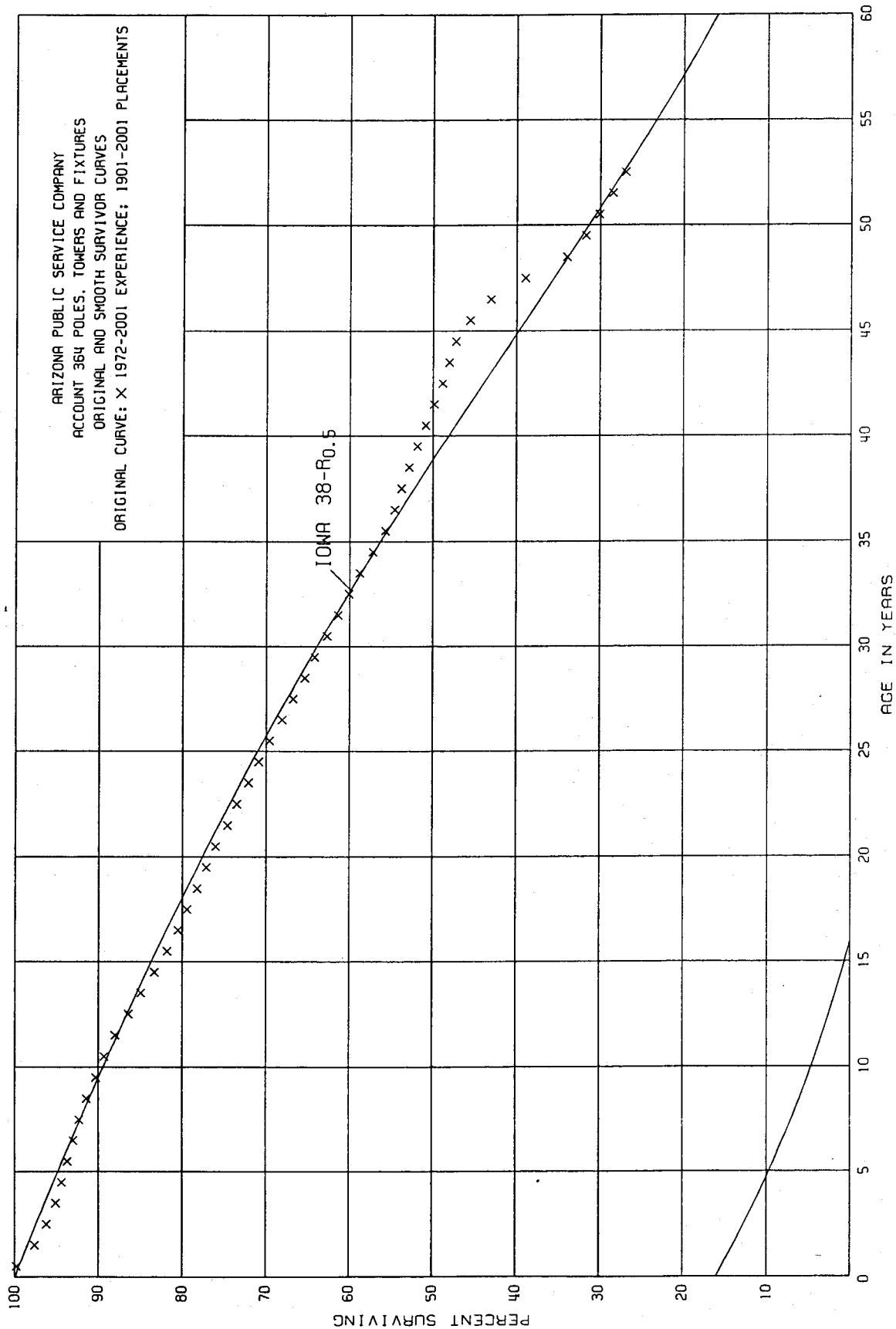
ACCOUNT 362 STATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1929-2001

EXPERIENCE BAND 1972-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	3,623,494	34,553	0.0095	0.9905	47.54
40.5	3,438,808	23,154	0.0067	0.9933	47.09
41.5	2,927,615	60,577	0.0207	0.9793	46.77
42.5	2,776,800	78,039	0.0281	0.9719	45.80
43.5	2,648,433	145,774	0.0550	0.9450	44.51
44.5	2,552,939	89,692	0.0351	0.9649	42.06
45.5	2,153,935	55,206	0.0256	0.9744	40.58
46.5	1,677,272	105,175	0.0627	0.9373	39.54
47.5	1,385,357	58,391	0.0421	0.9579	37.06
48.5	1,190,912	188,891	0.1586	0.8414	35.50
49.5	781,162	1,371	0.0018	0.9982	29.87
50.5	868,851	5,536	0.0064	0.9936	29.82
51.5	730,477		0.0000	1.0000	29.63
52.5	543,214		0.0000	1.0000	29.63
53.5	295,436		0.0000	1.0000	29.63
54.5	260,210		0.0000	1.0000	29.63
55.5	251,918	4,564	0.0181	0.9819	29.63
56.5	166,809		0.0000	1.0000	29.09
57.5	202,521	641	0.0032	0.9968	29.09
58.5	198,483	38,533	0.1941	0.8059	29.00
59.5	55,547		0.0000	1.0000	23.37
60.5	50,178		0.0000	1.0000	23.37
61.5	49,125		0.0000	1.0000	23.37
62.5	36,982		0.0000	1.0000	23.37
63.5	46,362		0.0000	1.0000	23.37
64.5	46,362		0.0000	1.0000	23.37
65.5	46,362		0.0000	1.0000	23.37
66.5	10,650		0.0000	1.0000	23.37
67.5	10,650		0.0000	1.0000	23.37
68.5	10,650		0.0000	1.0000	23.37
69.5	10,650		0.0000	1.0000	23.37
70.5	10,650		0.0000	1.0000	23.37
71.5	10,650		0.0000	1.0000	23.37
72.5					23.37



ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 364 POLES, TOWERS AND FIXTURES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1901-2001

EXPERIENCE BAND 1972-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	364,125,423	868,548	0.0024	0.9976	100.00
0.5	354,320,317	7,532,719	0.0213	0.9787	99.76
1.5	331,635,833	4,792,513	0.0145	0.9855	97.64
2.5	318,112,974	3,644,868	0.0115	0.9885	96.22
3.5	308,430,157	2,182,521	0.0071	0.9929	95.11
4.5	287,765,699	2,238,658	0.0078	0.9922	94.43
5.5	265,728,507	1,924,817	0.0072	0.9928	93.69
6.5	244,094,523	1,971,194	0.0081	0.9919	93.02
7.5	217,328,454	2,160,080	0.0099	0.9901	92.27
8.5	204,761,895	2,305,600	0.0113	0.9887	91.36
9.5	190,309,850	2,197,128	0.0115	0.9885	90.33
10.5	175,421,163	2,487,736	0.0142	0.9858	89.29
11.5	155,116,545	2,835,766	0.0183	0.9817	88.02
12.5	132,864,619	2,259,094	0.0170	0.9830	86.41
13.5	124,311,630	2,365,404	0.0190	0.9810	84.94
14.5	105,579,143	1,930,319	0.0183	0.9817	83.33
15.5	95,691,875	1,494,913	0.0156	0.9844	81.81
16.5	83,072,697	1,138,930	0.0137	0.9863	80.53
17.5	77,707,439	1,175,029	0.0151	0.9849	79.43
18.5	71,140,532	1,027,073	0.0144	0.9856	78.23
19.5	65,648,589	961,051	0.0146	0.9854	77.10
20.5	56,792,025	994,337	0.0175	0.9825	75.97
21.5	51,641,186	816,344	0.0158	0.9842	74.64
22.5	47,273,416	880,197	0.0186	0.9814	73.46
23.5	42,370,073	728,903	0.0172	0.9828	72.09
24.5	38,380,374	692,322	0.0180	0.9820	70.85
25.5	32,947,211	711,575	0.0216	0.9784	69.57
26.5	28,675,730	557,339	0.0194	0.9806	68.07
27.5	25,503,756	502,956	0.0197	0.9803	66.75
28.5	23,106,804	439,189	0.0190	0.9810	65.44
29.5	20,715,163	473,405	0.0229	0.9771	64.20
30.5	18,264,977	391,930	0.0215	0.9785	62.73
31.5	19,353,734	399,757	0.0207	0.9793	61.38
32.5	17,483,643	388,068	0.0222	0.9778	60.11
33.5	15,537,448	415,486	0.0267	0.9733	58.78
34.5	13,737,843	371,910	0.0271	0.9729	57.21
35.5	14,140,943	262,654	0.0186	0.9814	55.66
36.5	12,909,789	185,005	0.0143	0.9857	54.62
37.5	12,699,508	232,871	0.0183	0.9817	53.84
38.5	11,236,893	211,544	0.0188	0.9812	52.85

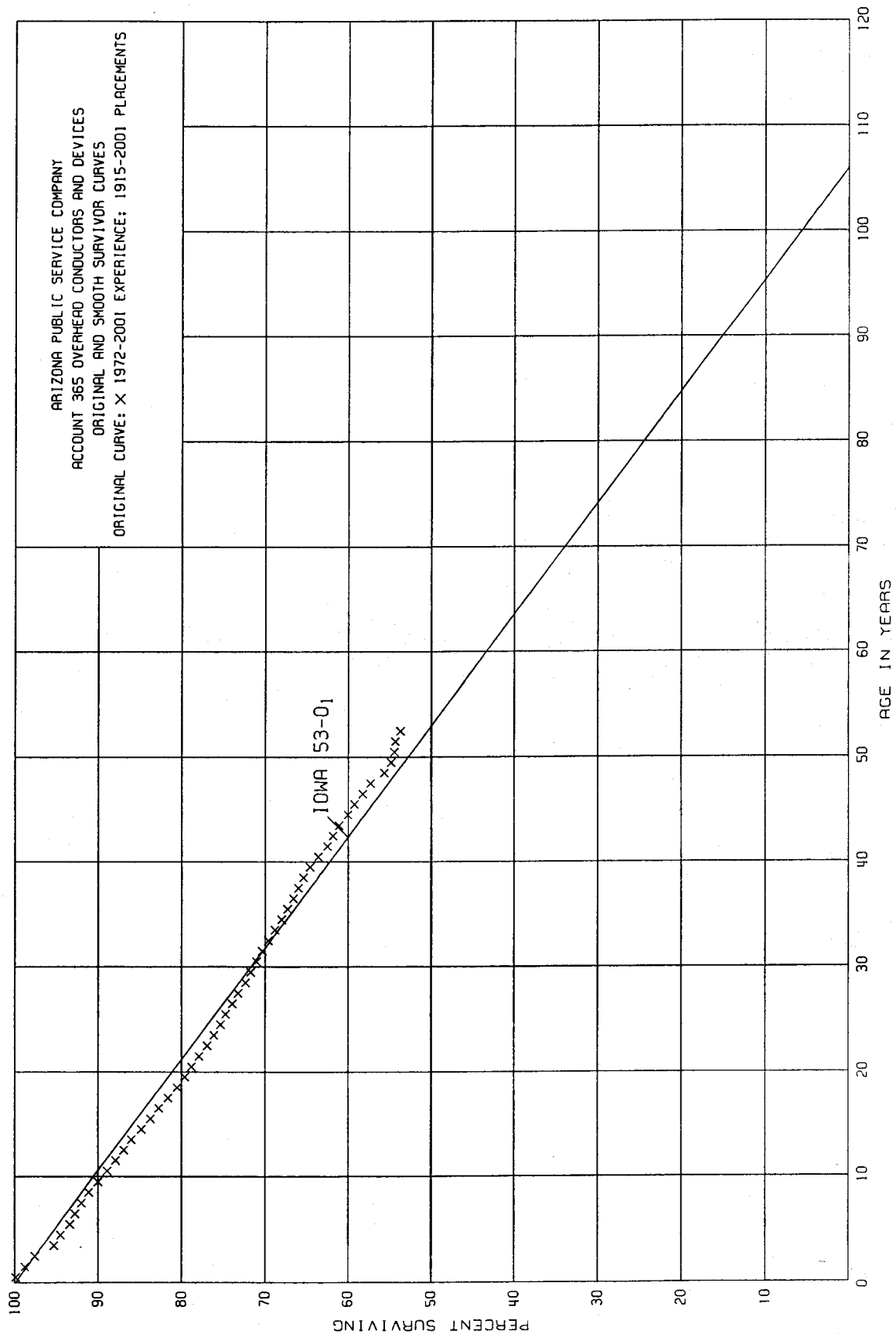
ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 364 POLES, TOWERS AND FIXTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1901-2001

EXPERIENCE BAND 1972-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	10,006,944	187,135	0.0187	0.9813	51.86
40.5	8,897,358	173,375	0.0195	0.9805	50.89
41.5	6,978,659	133,719	0.0192	0.9808	49.90
42.5	6,870,883	121,714	0.0177	0.9823	48.94
43.5	6,227,381	106,232	0.0171	0.9829	48.07
44.5	3,807,946	136,710	0.0359	0.9641	47.25
45.5	3,067,472	168,445	0.0549	0.9451	45.55
46.5	1,794,331	168,343	0.0938	0.9062	43.05
47.5	1,628,190	208,433	0.1280	0.8720	39.01
48.5	1,420,136	97,978	0.0690	0.9310	34.02
49.5	1,322,237	64,583	0.0488	0.9512	31.67
50.5	1,259,295	67,706	0.0538	0.9462	30.12
51.5	1,191,961	63,421	0.0532	0.9468	28.50
52.5	1,891	629	0.3326	0.6674	26.98
53.5	1,644	1,115	0.6782	0.3218	18.01
54.5	1,286	1,110	0.8631	0.1369	5.80
55.5	1,057	552	0.5222	0.4778	0.79
56.5	1,013	746	0.7364	0.2636	0.38
57.5	569	355	0.6239	0.3761	0.10
58.5	214	110	0.5140	0.4860	0.04
59.5	147	104	0.7075	0.2925	0.02
60.5	1,109	104	0.0938	0.9062	0.01
61.5	2,887	2,752	0.9532	0.0468	0.01
62.5	289	136	0.4706	0.5294	0.00
63.5	153	18	0.1176	0.8824	0.00
64.5	568	135	0.2377	0.7623	0.00
65.5	1,598	1,113	0.6965	0.3035	0.00
66.5	485		0.0000	1.0000	0.00
67.5	537	433	0.8063	0.1937	0.00
68.5	104	104	1.0000	0.0000	0.00
69.5	240	240	1.0000	0.0000	0.00
70.5					0.00
71.5					
72.5	80		0.0000		
73.5	80		0.0000		
74.5	80	36	0.4500		
75.5	44	44	1.0000		
76.5					
77.5	210		0.0000		
78.5	210		0.0000		



ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 365 OVERHEAD CONDUCTORS AND DEVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1915-2001

EXPERIENCE BAND 1972-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	208,808,502	245,878	0.0012	0.9988	100.00
0.5	202,278,009	2,216,859	0.0110	0.9890	99.88
1.5	199,338,305	2,495,343	0.0125	0.9875	98.78
2.5	193,245,840	4,509,866	0.0233	0.9767	97.55
3.5	194,844,438	1,634,144	0.0084	0.9916	95.28
4.5	196,368,639	2,259,977	0.0115	0.9885	94.48
5.5	182,101,407	1,260,722	0.0069	0.9931	93.39
6.5	172,326,524	1,346,695	0.0078	0.9922	92.75
7.5	157,491,449	1,628,065	0.0103	0.9897	92.03
8.5	142,238,040	1,704,382	0.0120	0.9880	91.08
9.5	138,694,340	1,765,170	0.0127	0.9873	89.99
10.5	126,562,462	1,342,228	0.0106	0.9894	88.85
11.5	116,901,021	1,366,198	0.0117	0.9883	87.91
12.5	97,113,377	937,772	0.0097	0.9903	86.88
13.5	82,219,573	1,177,080	0.0143	0.9857	86.04
14.5	80,981,435	1,089,844	0.0135	0.9865	84.81
15.5	75,395,687	882,598	0.0117	0.9883	83.67
16.5	75,732,097	1,018,596	0.0134	0.9866	82.69
17.5	72,044,113	986,579	0.0137	0.9863	81.58
18.5	65,836,393	711,622	0.0108	0.9892	80.46
19.5	61,692,548	606,302	0.0098	0.9902	79.59
20.5	54,564,000	666,636	0.0122	0.9878	78.81
21.5	50,534,817	623,594	0.0123	0.9877	77.85
22.5	46,392,853	498,971	0.0108	0.9892	76.89
23.5	42,351,835	411,299	0.0097	0.9903	76.06
24.5	38,699,697	321,426	0.0083	0.9917	75.32
25.5	34,647,023	380,753	0.0110	0.9890	74.69
26.5	31,133,305	304,002	0.0098	0.9902	73.87
27.5	28,615,761	318,411	0.0111	0.9889	73.15
28.5	25,943,546	222,141	0.0086	0.9914	72.34
29.5	23,203,880	226,324	0.0098	0.9902	71.72
30.5	20,515,185	203,503	0.0099	0.9901	71.02
31.5	21,795,706	214,115	0.0098	0.9902	70.32
32.5	19,459,352	238,393	0.0123	0.9877	69.63
33.5	17,124,239	195,682	0.0114	0.9886	68.77
34.5	14,778,922	156,526	0.0106	0.9894	67.99
35.5	13,836,947	130,175	0.0094	0.9906	67.27
36.5	12,280,193	112,670	0.0092	0.9908	66.64
37.5	11,267,469	103,962	0.0092	0.9908	66.03
38.5	9,660,661	125,754	0.0130	0.9870	65.42

ARIZONA PUBLIC SERVICE COMPANY

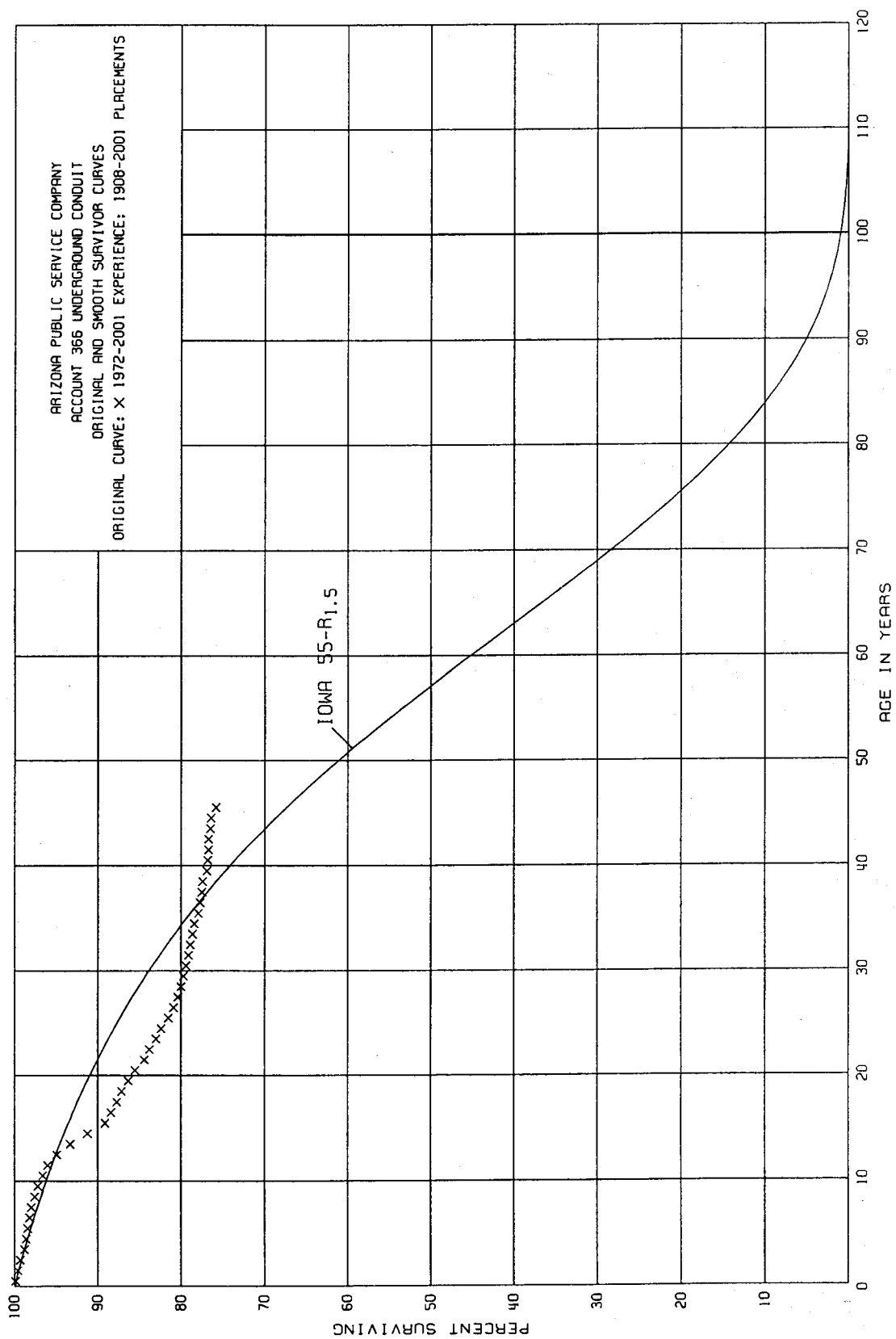
ACCOUNT 365 OVERHEAD CONDUCTORS AND DEVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1915-2001

EXPERIENCE BAND 1972-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	8,368,138	131,680	0.0157	0.9843	64.57
40.5	7,322,220	117,299	0.0160	0.9840	63.56
41.5	6,008,525	73,160	0.0122	0.9878	62.54
42.5	5,950,008	67,548	0.0114	0.9886	61.78
43.5	5,407,719	92,900	0.0172	0.9828	61.08
44.5	4,300,559	58,267	0.0135	0.9865	60.03
45.5	3,696,885	63,208	0.0171	0.9829	59.22
46.5	3,093,092	50,975	0.0165	0.9835	58.21
47.5	3,042,949	88,212	0.0290	0.9710	57.25
48.5	2,954,737	39,786	0.0135	0.9865	55.59
49.5	2,914,951	22,417	0.0077	0.9923	54.84
50.5	2,892,999	9,338	0.0032	0.9968	54.42
51.5	2,883,661	29,334	0.0102	0.9898	54.25
52.5	708	46	0.0650	0.9350	53.70
53.5	677	72	0.1064	0.8936	50.21
54.5	779	343	0.4403	0.5597	44.87
55.5	472	472	1.0000	0.0000	25.11
56.5					0.00
57.5	17	17	1.0000		
58.5					
59.5					
60.5	190		0.0000		
61.5	3,557	3,229	0.9078		
62.5	368		0.0000		
63.5	368	40	0.1087		
64.5	1,701	328	0.1928		
65.5	2,583	1,142	0.4421		
66.5	1,441		0.0000		
67.5	1,460	1,441	0.9870		
68.5	19	19	1.0000		
69.5	24	24	1.0000		
70.5					
71.5					
72.5					
73.5					
74.5					
75.5					
76.5					
77.5	36		0.0000		
78.5	36		0.0000		



ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 366 UNDERGROUND CONDUIT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1908-2001

EXPERIENCE BAND 1972-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	387,596,920	421,701	0.0011	0.9989	100.00
0.5	366,031,434	1,218,352	0.0033	0.9967	99.89
1.5	342,315,058	985,589	0.0029	0.9971	99.56
2.5	315,641,697	1,522,658	0.0048	0.9952	99.27
3.5	279,995,934	452,787	0.0016	0.9984	98.79
4.5	248,933,463	495,046	0.0020	0.9980	98.63
5.5	208,517,962	455,208	0.0022	0.9978	98.43
6.5	178,210,460	426,608	0.0024	0.9976	98.21
7.5	141,817,235	518,998	0.0037	0.9963	97.97
8.5	83,128,115	385,736	0.0046	0.9954	97.61
9.5	75,025,439	453,446	0.0060	0.9940	97.16
10.5	61,844,478	390,577	0.0063	0.9937	96.58
11.5	47,199,200	513,614	0.0109	0.9891	95.97
12.5	41,698,898	716,324	0.0172	0.9828	94.92
13.5	32,049,449	710,617	0.0222	0.9778	93.29
14.5	27,796,576	653,240	0.0235	0.9765	91.22
15.5	24,647,603	200,425	0.0081	0.9919	89.08
16.5	23,754,152	181,625	0.0076	0.9924	88.36
17.5	21,734,445	155,778	0.0072	0.9928	87.69
18.5	19,317,915	160,134	0.0083	0.9917	87.06
19.5	16,863,697	162,530	0.0096	0.9904	86.34
20.5	14,547,334	183,148	0.0126	0.9874	85.51
21.5	11,716,676	91,476	0.0078	0.9922	84.43
22.5	10,394,393	92,360	0.0089	0.9911	83.77
23.5	8,435,989	67,576	0.0080	0.9920	83.02
24.5	8,026,063	82,367	0.0103	0.9897	82.36
25.5	8,074,618	62,361	0.0077	0.9923	81.51
26.5	7,194,354	41,967	0.0058	0.9942	80.88
27.5	6,289,634	34,671	0.0055	0.9945	80.41
28.5	5,995,739	20,467	0.0034	0.9966	79.97
29.5	5,357,273	18,992	0.0035	0.9965	79.70
30.5	4,446,730	17,803	0.0040	0.9960	79.42
31.5	4,219,878	11,015	0.0026	0.9974	79.10
32.5	3,915,913	15,342	0.0039	0.9961	78.89
33.5	3,121,257	8,779	0.0028	0.9972	78.58
34.5	2,278,994	13,188	0.0058	0.9942	78.36
35.5	2,135,709	4,745	0.0022	0.9978	77.91
36.5	2,600,956	8,038	0.0031	0.9969	77.74
37.5	1,942,107	3,408	0.0018	0.9982	77.50
38.5	1,770,454	11,571	0.0065	0.9935	77.36

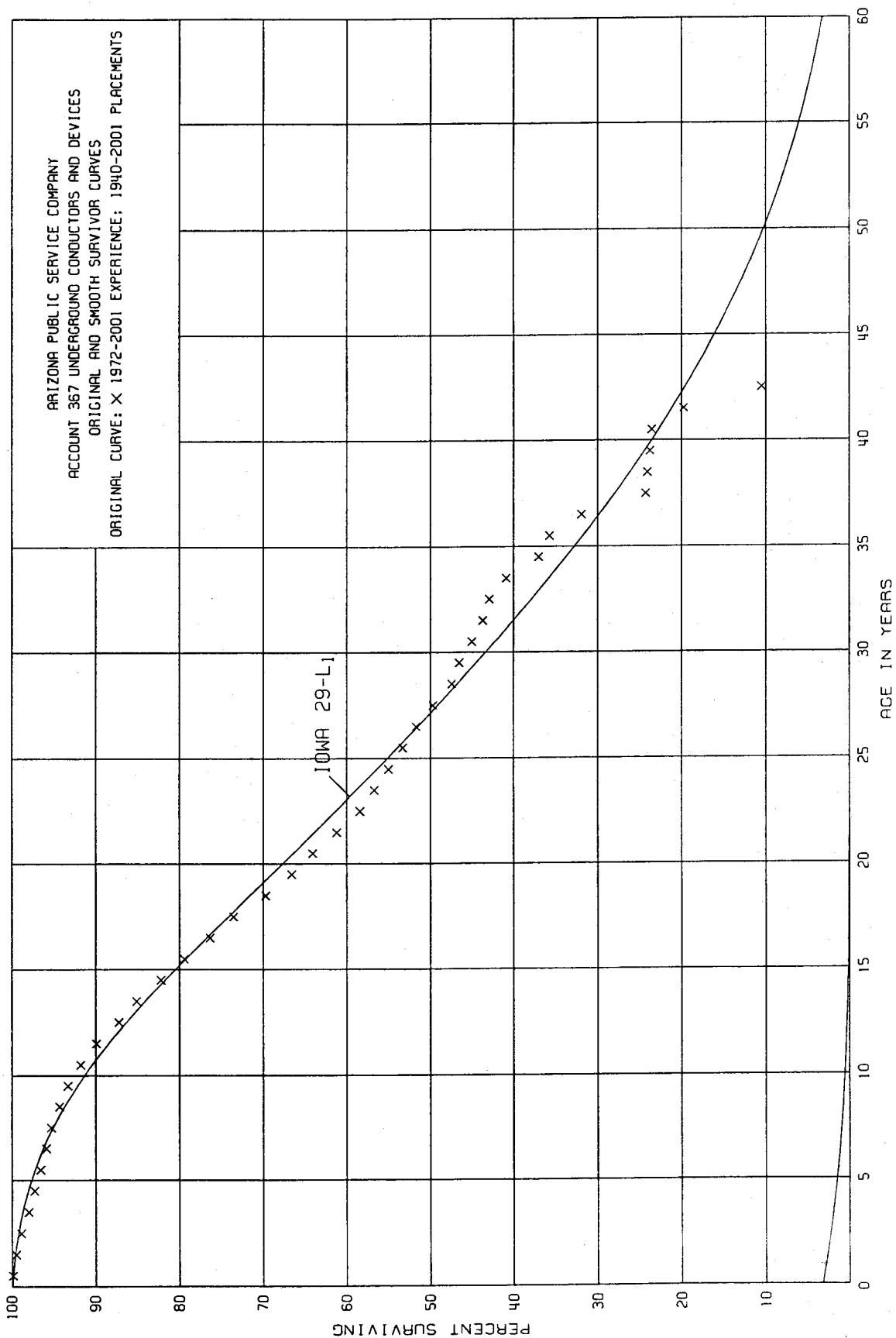
ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 366 UNDERGROUND CONDUIT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1908-2001

EXPERIENCE BAND 1972-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,704,294	1,944	0.0011	0.9989	76.86
40.5	734,985	618	0.0008	0.9992	76.78
41.5	715,027	33	0.0000	1.0000	76.72
42.5	715,248	1,724	0.0024	0.9976	76.72
43.5	700,476	1,100	0.0016	0.9984	76.54
44.5	681,964	5,787	0.0085	0.9915	76.42
45.5	5,297	64	0.0121	0.9879	75.77
46.5	5,233	140	0.0268	0.9732	74.85
47.5	5,093	47	0.0092	0.9908	72.84
48.5	5,046	36	0.0071	0.9929	72.17
49.5	5,010	62	0.0124	0.9876	71.66
50.5	4,948	42	0.0085	0.9915	70.77
51.5	4,906	198	0.0404	0.9596	70.17
52.5					67.34
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ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 367 UNDERGROUND CONDUCTORS AND DEVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1940-2001

EXPERIENCE BAND 1972-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	876,284,012	722,739	0.0008	0.9992	100.00
0.5	826,753,572	3,537,174	0.0043	0.9957	99.92
1.5	756,425,408	4,834,281	0.0064	0.9936	99.49
2.5	702,641,107	6,219,588	0.0089	0.9911	98.85
3.5	624,803,234	4,030,394	0.0065	0.9935	97.97
4.5	573,423,507	4,562,444	0.0080	0.9920	97.33
5.5	522,560,698	3,641,348	0.0070	0.9930	96.55
6.5	473,417,534	2,604,433	0.0055	0.9945	95.87
7.5	441,943,847	4,785,505	0.0108	0.9892	95.34
8.5	402,442,922	4,177,513	0.0104	0.9896	94.31
9.5	352,124,730	5,844,161	0.0166	0.9834	93.33
10.5	316,232,442	6,316,870	0.0200	0.9800	91.78
11.5	262,661,787	8,031,631	0.0306	0.9694	89.94
12.5	213,882,177	5,178,974	0.0242	0.9758	87.19
13.5	170,959,791	5,862,836	0.0343	0.9657	85.08
14.5	140,245,306	4,665,047	0.0333	0.9667	82.16
15.5	119,589,944	4,688,010	0.0392	0.9608	79.42
16.5	95,875,553	3,552,130	0.0370	0.9630	76.31
17.5	80,832,904	4,148,953	0.0513	0.9487	73.49
18.5	68,325,741	3,084,588	0.0451	0.9549	69.72
19.5	54,740,754	2,007,801	0.0367	0.9633	66.58
20.5	41,648,606	1,906,300	0.0458	0.9542	64.14
21.5	30,967,227	1,439,707	0.0465	0.9535	61.20
22.5	29,719,479	847,561	0.0285	0.9715	58.35
23.5	25,111,726	731,069	0.0291	0.9709	56.69
24.5	23,931,316	761,995	0.0318	0.9682	55.04
25.5	24,508,389	734,459	0.0300	0.9700	53.29
26.5	21,764,519	825,899	0.0379	0.9621	51.69
27.5	21,429,433	998,417	0.0466	0.9534	49.73
28.5	22,102,703	443,786	0.0201	0.9799	47.41
29.5	21,031,634	642,292	0.0305	0.9695	46.46
30.5	19,539,231	587,074	0.0300	0.9700	45.04
31.5	20,989,042	362,802	0.0173	0.9827	43.69
32.5	19,744,916	951,329	0.0482	0.9518	42.93
33.5	16,722,784	1,590,029	0.0951	0.9049	40.86
34.5	12,310,074	438,612	0.0356	0.9644	36.97
35.5	10,945,048	1,162,964	0.1063	0.8937	35.65
36.5	11,767,472	2,781,056	0.2363	0.7637	31.86
37.5	7,601,852	64,440	0.0085	0.9915	24.33
38.5	7,179,864	99,096	0.0138	0.9862	24.12

ARIZONA PUBLIC SERVICE COMPANY

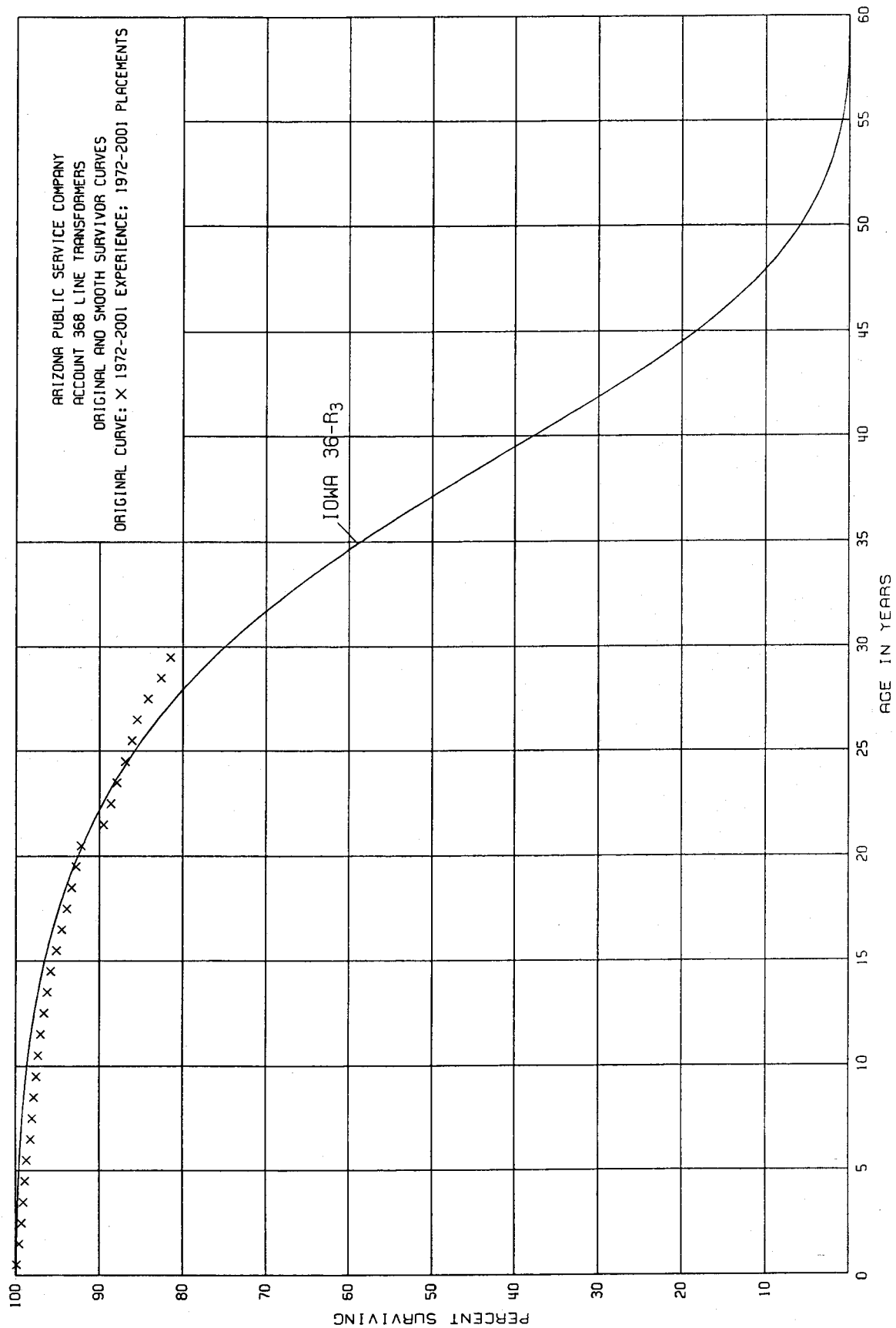
ACCOUNT 367 UNDERGROUND CONDUCTORS AND DEVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1940-2001

EXPERIENCE BAND 1972-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	7,075,411	65,899	0.0093	0.9907	23.79
40.5	4,074,677	649,644	0.1594	0.8406	23.57
41.5	3,374,651	1,587,494	0.4704	0.5296	19.81
42.5	1,797,391	28,270	0.0157	0.9843	10.49
43.5	1,714,852	22,438	0.0131	0.9869	10.33
44.5	1,692,414	30,389	0.0180	0.9820	10.19
45.5	10,939	1,409	0.1288	0.8712	10.01
46.5	9,610	357	0.0371	0.9629	8.72
47.5	9,253	8,564	0.9255	0.0745	8.40
48.5	689	92	0.1335	0.8665	0.63
49.5	597	522	0.8744	0.1256	0.55
50.5	75	75	1.0000	0.0000	0.07
51.5					0.00



ARIZONA PUBLIC SERVICE COMPANY

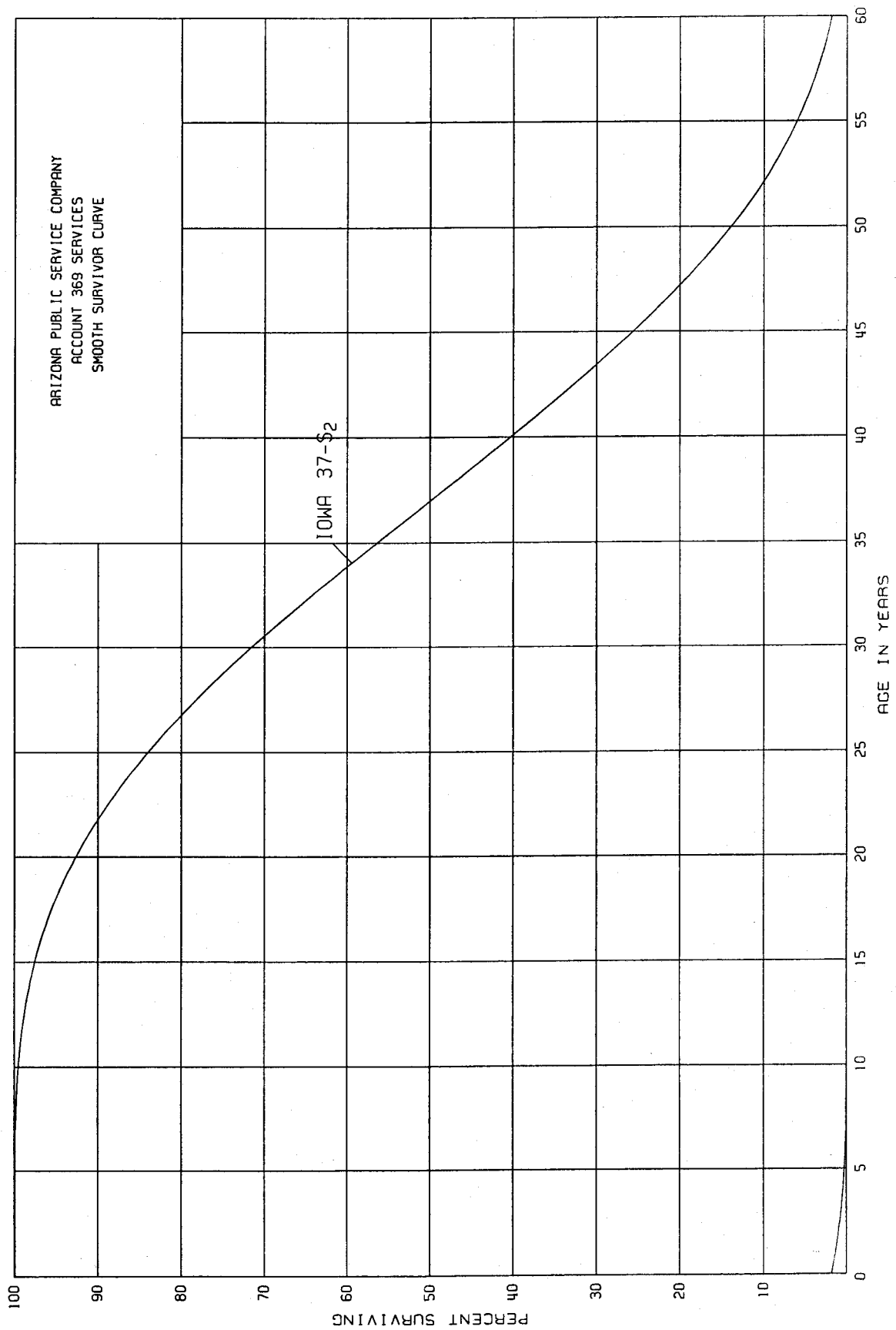
ACCOUNT 368 LINE TRANSFORMERS

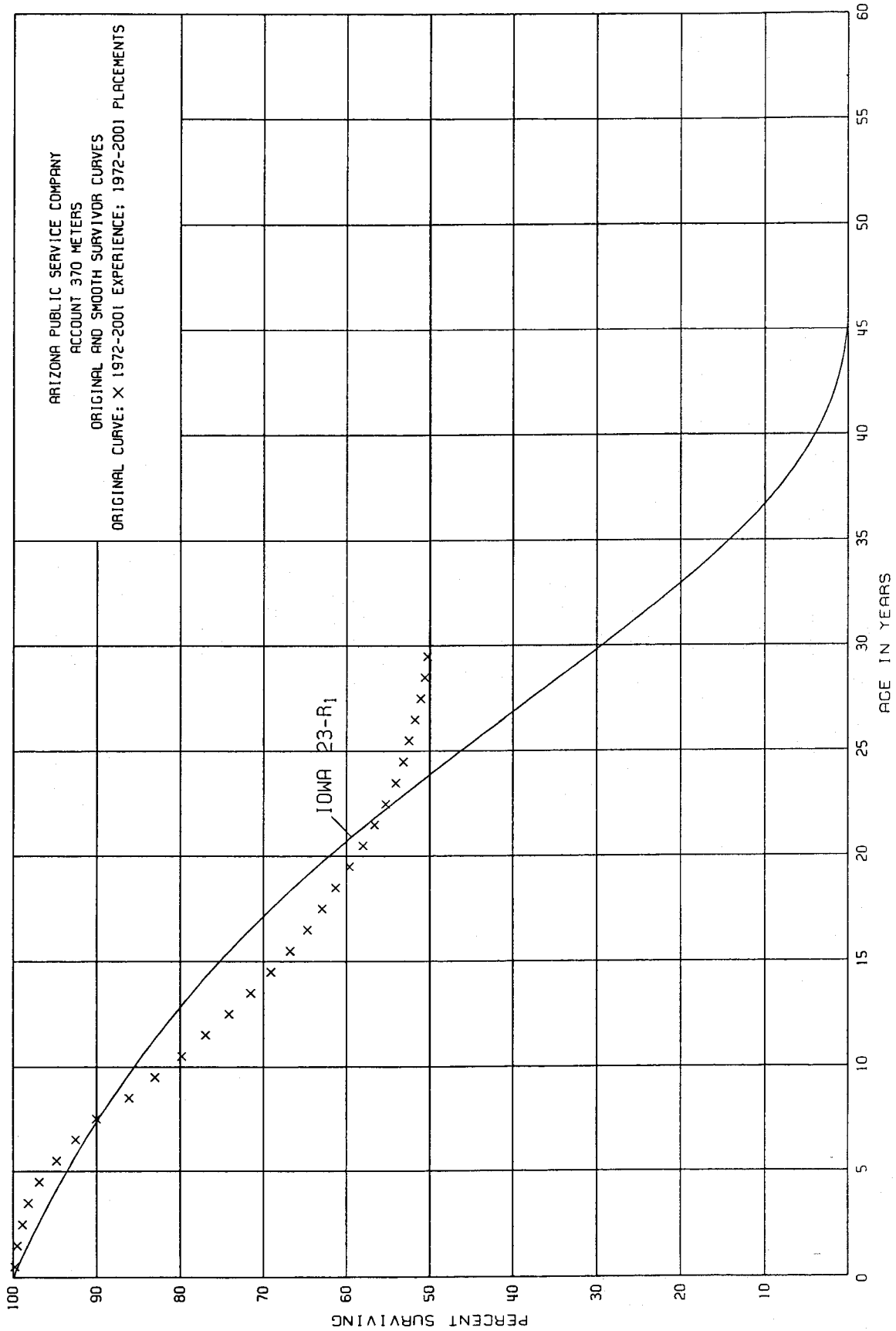
ORIGINAL LIFE TABLE

PLACEMENT BAND 1972-2001

EXPERIENCE BAND 1972-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	409,556,128	483,755	0.0012	0.9988	100.00
0.5	390,218,638	1,200,766	0.0031	0.9969	99.88
1.5	367,685,199	861,295	0.0023	0.9977	99.57
2.5	350,982,330	755,933	0.0022	0.9978	99.34
3.5	312,140,355	768,355	0.0025	0.9975	99.12
4.5	298,452,409	633,025	0.0021	0.9979	98.87
5.5	282,799,624	1,223,347	0.0043	0.9957	98.66
6.5	270,084,291	654,473	0.0024	0.9976	98.24
7.5	274,645,188	727,375	0.0026	0.9974	98.00
8.5	265,123,356	633,902	0.0024	0.9976	97.75
9.5	254,373,710	657,468	0.0026	0.9974	97.52
10.5	248,753,773	722,947	0.0029	0.9971	97.27
11.5	234,213,940	859,337	0.0037	0.9963	96.99
12.5	214,743,174	980,429	0.0046	0.9954	96.63
13.5	196,944,893	879,530	0.0045	0.9955	96.19
14.5	180,289,967	1,173,383	0.0065	0.9935	95.76
15.5	158,198,520	991,364	0.0063	0.9937	95.14
16.5	134,793,615	866,706	0.0064	0.9936	94.54
17.5	110,041,250	700,122	0.0064	0.9936	93.93
18.5	95,881,610	503,952	0.0053	0.9947	93.33
19.5	81,829,313	566,754	0.0069	0.9931	92.84
20.5	60,458,630	1,803,366	0.0298	0.9702	92.20
21.5	47,625,668	457,337	0.0096	0.9904	89.45
22.5	36,588,981	306,847	0.0084	0.9916	88.59
23.5	27,305,045	307,146	0.0112	0.9888	87.85
24.5	20,576,219	188,658	0.0092	0.9908	86.87
25.5	17,296,179	116,501	0.0067	0.9933	86.07
26.5	13,096,021	204,520	0.0156	0.9844	85.49
27.5	8,194,985	148,010	0.0181	0.9819	84.16
28.5	3,257,153	45,533	0.0140	0.9860	82.64
29.5					81.48





ARIZONA PUBLIC SERVICE COMPANY

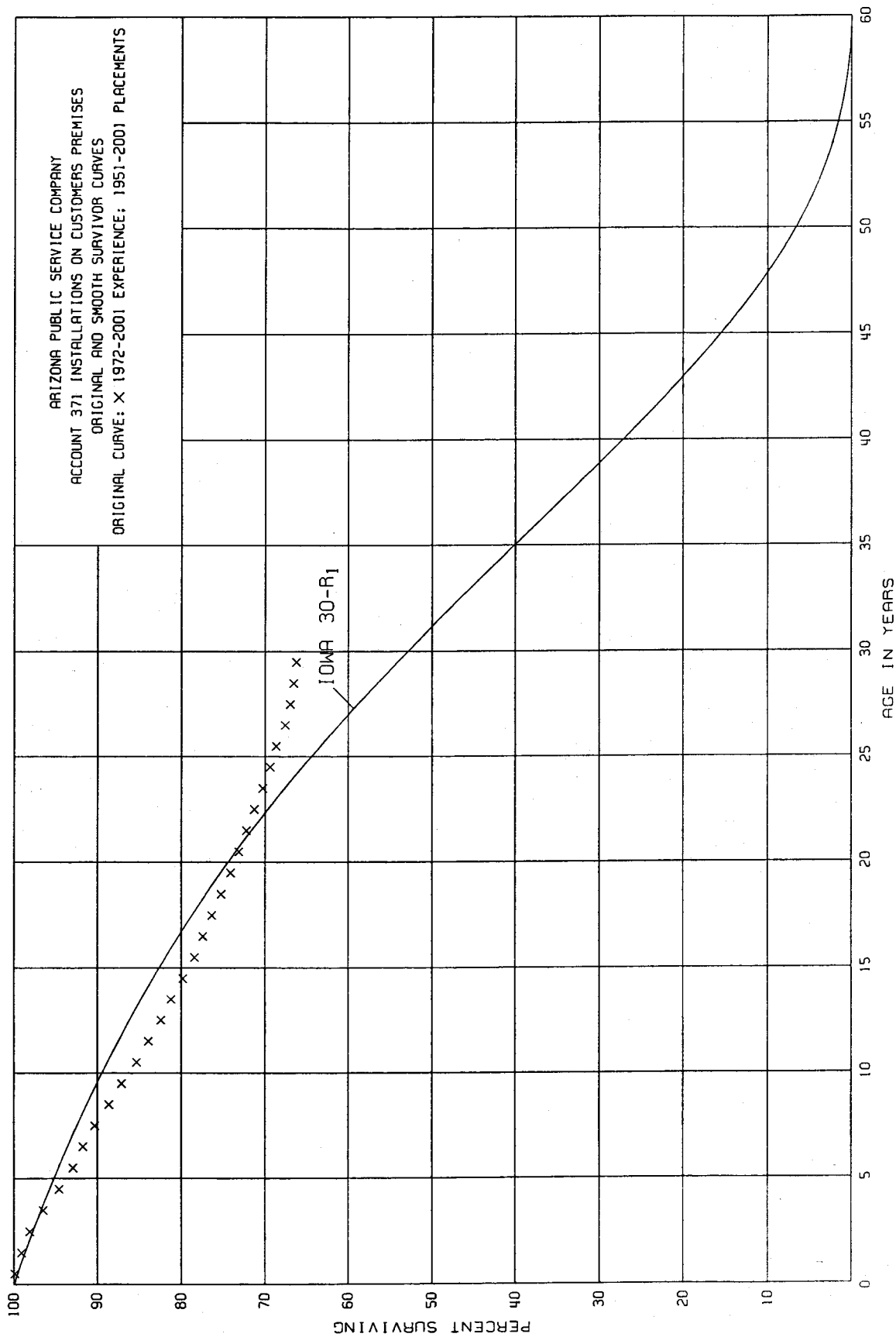
ACCOUNT 370 METERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1972-2001

EXPERIENCE BAND 1972-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	171,380,365	289,831	0.0017	0.9983	100.00
0.5	167,447,246	585,614	0.0035	0.9965	99.83
1.5	160,251,591	867,099	0.0054	0.9946	99.48
2.5	154,415,917	1,181,538	0.0077	0.9923	98.94
3.5	139,853,168	1,811,238	0.0130	0.9870	98.18
4.5	138,376,708	2,975,787	0.0215	0.9785	96.90
5.5	130,673,277	3,141,897	0.0240	0.9760	94.82
6.5	118,341,757	3,277,562	0.0277	0.9723	92.54
7.5	100,253,207	4,292,260	0.0428	0.9572	89.98
8.5	88,394,041	3,232,030	0.0366	0.9634	86.13
9.5	67,046,287	2,580,629	0.0385	0.9615	82.98
10.5	59,043,856	2,153,575	0.0365	0.9635	79.79
11.5	50,703,081	1,860,819	0.0367	0.9633	76.88
12.5	41,048,837	1,417,294	0.0345	0.9655	74.06
13.5	33,937,772	1,130,152	0.0333	0.9667	71.50
14.5	26,789,449	886,027	0.0331	0.9669	69.12
15.5	22,502,412	714,854	0.0318	0.9682	66.83
16.5	18,212,515	511,904	0.0281	0.9719	64.70
17.5	14,300,708	359,207	0.0251	0.9749	62.88
18.5	12,868,692	362,554	0.0282	0.9718	61.30
19.5	11,839,624	305,175	0.0258	0.9742	59.57
20.5	9,863,168	245,276	0.0249	0.9751	58.03
21.5	7,625,230	170,695	0.0224	0.9776	56.59
22.5	5,922,251	127,693	0.0216	0.9784	55.32
23.5	4,805,834	82,836	0.0172	0.9828	54.13
24.5	3,485,345	49,079	0.0141	0.9859	53.20
25.5	2,988,744	40,080	0.0134	0.9866	52.45
26.5	2,598,288	32,474	0.0125	0.9875	51.75
27.5	1,633,577	14,733	0.0090	0.9910	51.10
28.5	742,234	5,113	0.0069	0.9931	50.64
29.5					50.29



ARIZONA PUBLIC SERVICE COMPANY

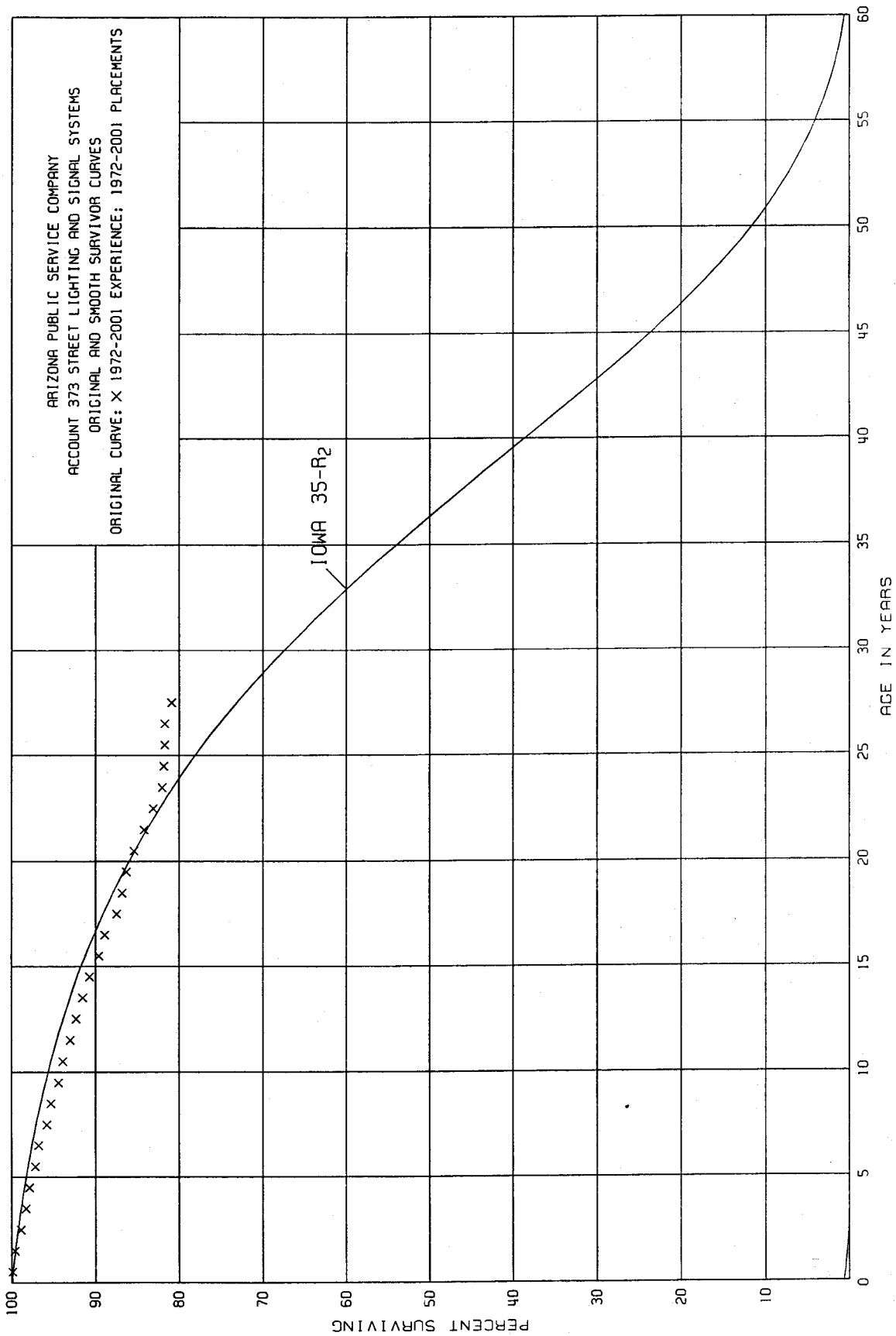
ACCOUNT 371 INSTALLATIONS ON CUSTOMERS PREMISES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1951-2001

EXPERIENCE BAND 1972-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	24,671,248	32,306	0.0013	0.9987	100.00
0.5	24,023,847	188,156	0.0078	0.9922	99.87
1.5	22,305,295	224,931	0.0101	0.9899	99.09
2.5	21,361,416	338,732	0.0159	0.9841	98.09
3.5	20,240,250	412,775	0.0204	0.9796	96.53
4.5	18,552,871	326,158	0.0176	0.9824	94.56
5.5	16,702,405	218,915	0.0131	0.9869	92.90
6.5	15,539,661	238,951	0.0154	0.9846	91.68
7.5	13,821,733	255,437	0.0185	0.9815	90.27
8.5	12,007,759	208,793	0.0174	0.9826	88.60
9.5	11,036,857	217,675	0.0197	0.9803	87.06
10.5	9,592,889	167,221	0.0174	0.9826	85.34
11.5	9,067,270	155,378	0.0171	0.9829	83.86
12.5	7,936,187	117,299	0.0148	0.9852	82.43
13.5	6,976,472	123,526	0.0177	0.9823	81.21
14.5	6,546,715	109,537	0.0167	0.9833	79.77
15.5	6,147,033	77,948	0.0127	0.9873	78.44
16.5	5,419,353	82,991	0.0153	0.9847	77.44
17.5	5,215,028	72,774	0.0140	0.9860	76.26
18.5	4,835,135	70,142	0.0145	0.9855	75.19
19.5	4,598,392	59,356	0.0129	0.9871	74.10
20.5	3,942,379	53,735	0.0136	0.9864	73.14
21.5	3,549,030	39,881	0.0112	0.9888	72.15
22.5	3,209,124	47,245	0.0147	0.9853	71.34
23.5	3,066,294	39,868	0.0130	0.9870	70.29
24.5	2,977,216	27,840	0.0094	0.9906	69.38
25.5	2,993,994	50,398	0.0168	0.9832	68.73
26.5	2,738,115	22,239	0.0081	0.9919	67.58
27.5	3,061,705	19,088	0.0062	0.9938	67.03
28.5	2,835,803	15,137	0.0053	0.9947	66.61
29.5	2,515,823	16,424	0.0065	0.9935	66.26
30.5	2,220,411	11,115	0.0050	0.9950	65.83
31.5	2,128,056	19,686	0.0093	0.9907	65.50
32.5	1,768,363	9,240	0.0052	0.9948	64.89
33.5	1,569,010	9,062	0.0058	0.9942	64.55
34.5	1,227,674	5,207	0.0042	0.9958	64.18
35.5	1,007,392	2,459	0.0024	0.9976	63.91
36.5	1,160	200	0.1724	0.8276	63.76
37.5	1,469		0.0000	1.0000	52.77
38.5	1,531	1,138	0.7433	0.2567	52.77



ARIZONA PUBLIC SERVICE COMPANY

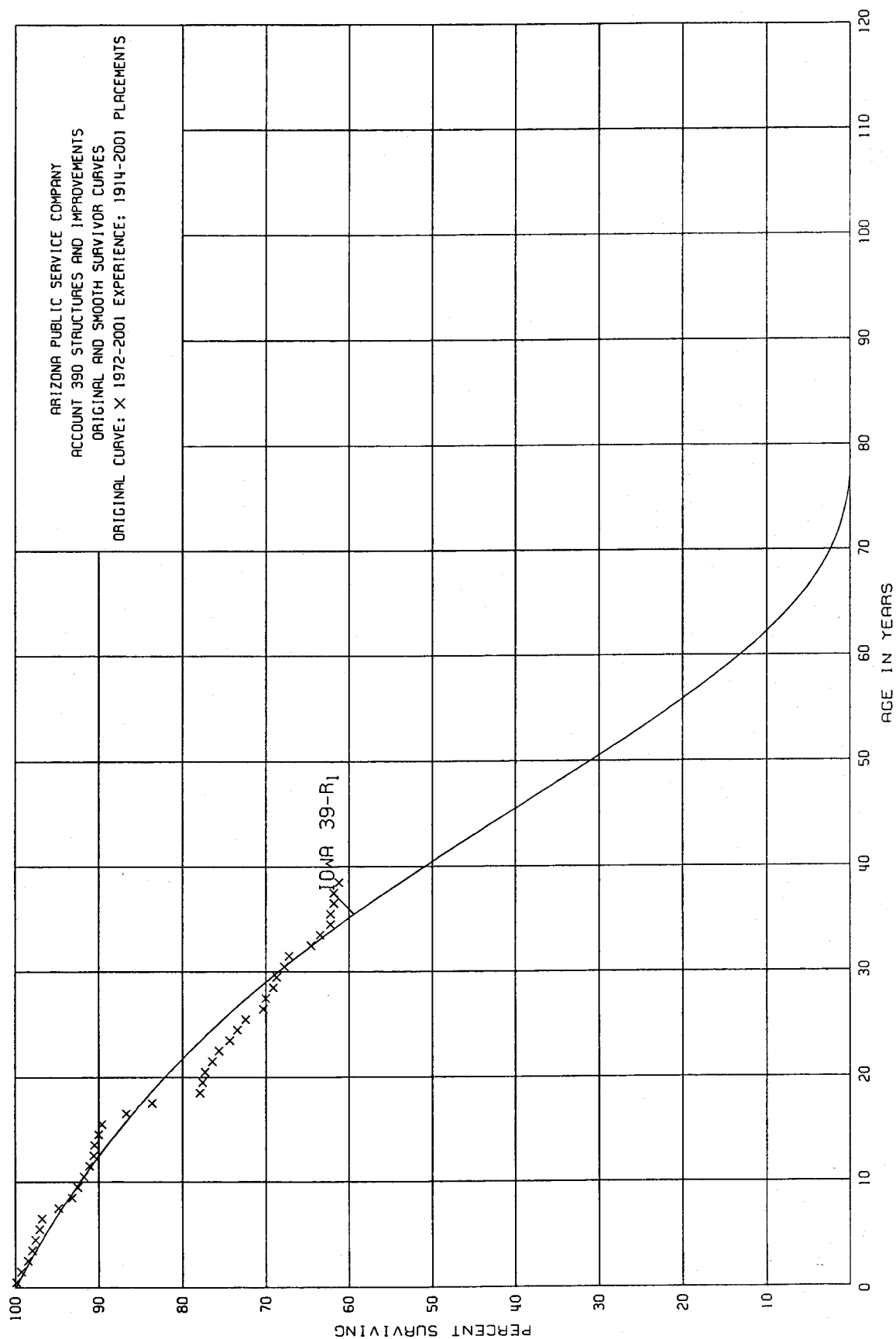
ACCOUNT 373 STREET LIGHTING AND SIGNAL SYSTEMS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1972-2001

EXPERIENCE BAND 1972-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	89,131,201	42,460	0.0005	0.9995	100.00
0.5	85,324,632	314,888	0.0037	0.9963	99.95
1.5	84,687,663	551,919	0.0065	0.9935	99.58
2.5	78,455,755	545,127	0.0069	0.9931	98.93
3.5	70,363,140	262,948	0.0037	0.9963	98.25
4.5	64,073,407	426,834	0.0067	0.9933	97.89
5.5	55,077,558	250,129	0.0045	0.9955	97.23
6.5	46,588,158	490,023	0.0105	0.9895	96.79
7.5	39,570,710	214,049	0.0054	0.9946	95.77
8.5	33,192,144	284,370	0.0086	0.9914	95.25
9.5	31,540,940	189,643	0.0060	0.9940	94.43
10.5	25,425,774	231,617	0.0091	0.9909	93.86
11.5	22,105,553	163,189	0.0074	0.9926	93.01
12.5	16,773,375	152,492	0.0091	0.9909	92.32
13.5	14,321,601	125,575	0.0088	0.9912	91.48
14.5	11,064,570	130,496	0.0118	0.9882	90.67
15.5	10,072,303	81,171	0.0081	0.9919	89.60
16.5	8,975,449	142,844	0.0159	0.9841	88.87
17.5	8,094,826	61,850	0.0076	0.9924	87.46
18.5	6,361,242	36,646	0.0058	0.9942	86.80
19.5	5,491,831	57,921	0.0105	0.9895	86.30
20.5	4,123,378	57,244	0.0139	0.9861	85.39
21.5	3,441,063	45,089	0.0131	0.9869	84.20
22.5	2,786,888	37,441	0.0134	0.9866	83.10
23.5	1,959,515	5,540	0.0028	0.9972	81.99
24.5	1,569,268	1,356	0.0009	0.9991	81.76
25.5	1,209,232	462	0.0004	0.9996	81.69
26.5	897,144	8,365	0.0093	0.9907	81.66
27.5	564,386	4,544	0.0081	0.9919	80.90
28.5	209,937	884	0.0042	0.9958	80.24
29.5					79.90



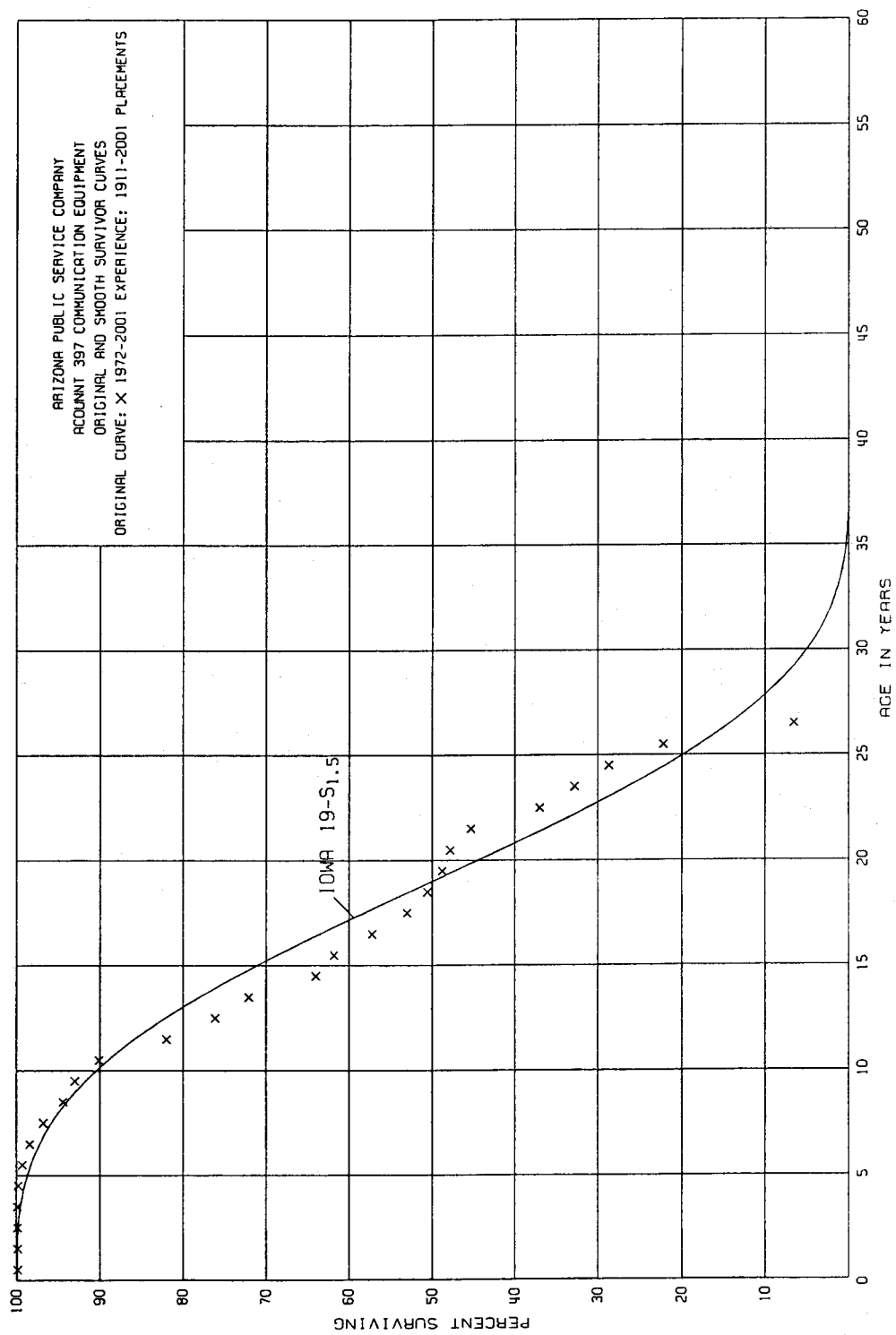
ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 390 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1914-2001

EXPERIENCE BAND 1972-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	92,892,264	43,983	0.0005	0.9995	100.00
0.5	94,523,118	656,714	0.0069	0.9931	99.95
1.5	93,764,375	727,700	0.0078	0.9922	99.26
2.5	93,307,523	432,280	0.0046	0.9954	98.49
3.5	86,288,480	367,348	0.0043	0.9957	98.04
4.5	87,355,391	466,745	0.0053	0.9947	97.62
5.5	75,872,877	269,125	0.0035	0.9965	97.10
6.5	74,646,924	1,523,616	0.0204	0.9796	96.76
7.5	70,323,580	1,153,390	0.0164	0.9836	94.79
8.5	69,688,415	546,748	0.0078	0.9922	93.24
9.5	67,850,038	535,768	0.0079	0.9921	92.51
10.5	59,934,599	463,170	0.0077	0.9923	91.78
11.5	57,647,623	303,057	0.0053	0.9947	91.07
12.5	61,827,132	96,191	0.0016	0.9984	90.59
13.5	51,678,469	282,821	0.0055	0.9945	90.45
14.5	46,343,248	174,499	0.0038	0.9962	89.95
15.5	36,738,087	1,207,019	0.0329	0.9671	89.61
16.5	28,282,040	998,553	0.0353	0.9647	86.66
17.5	25,627,800	1,763,828	0.0688	0.9312	83.60
18.5	23,118,190	89,748	0.0039	0.9961	77.85
19.5	19,567,474	53,758	0.0027	0.9973	77.55
20.5	19,462,739	239,006	0.0123	0.9877	77.34
21.5	11,292,736	117,207	0.0104	0.9896	76.39
22.5	7,985,579	140,264	0.0176	0.9824	75.60
23.5	7,480,489	85,065	0.0114	0.9886	74.27
24.5	7,270,176	105,216	0.0145	0.9855	73.42
25.5	6,870,763	198,536	0.0289	0.9711	72.36
26.5	6,293,136	24,178	0.0038	0.9962	70.27
27.5	5,552,907	72,063	0.0130	0.9870	70.00
28.5	5,271,555	30,232	0.0057	0.9943	69.09
29.5	6,465,227	88,712	0.0137	0.9863	68.70
30.5	7,402,688	59,551	0.0080	0.9920	67.76
31.5	7,424,520	288,151	0.0388	0.9612	67.22
32.5	6,697,769	117,374	0.0175	0.9825	64.61
33.5	6,457,574	131,006	0.0203	0.9797	63.48
34.5	6,224,864	623	0.0001	0.9999	62.19
35.5	6,059,235	32,478	0.0054	0.9946	62.18
36.5	5,985,690		0.0000	1.0000	61.84
37.5	5,418,693	54,049	0.0100	0.9900	61.84
38.5	1,805,012		0.0000	1.0000	61.22



ARIZONA PUBLIC SERVICE COMPANY
ACOUNNT 397 COMMUNICATION EQUIPMENT

ORIGINAL LIFE TABLE

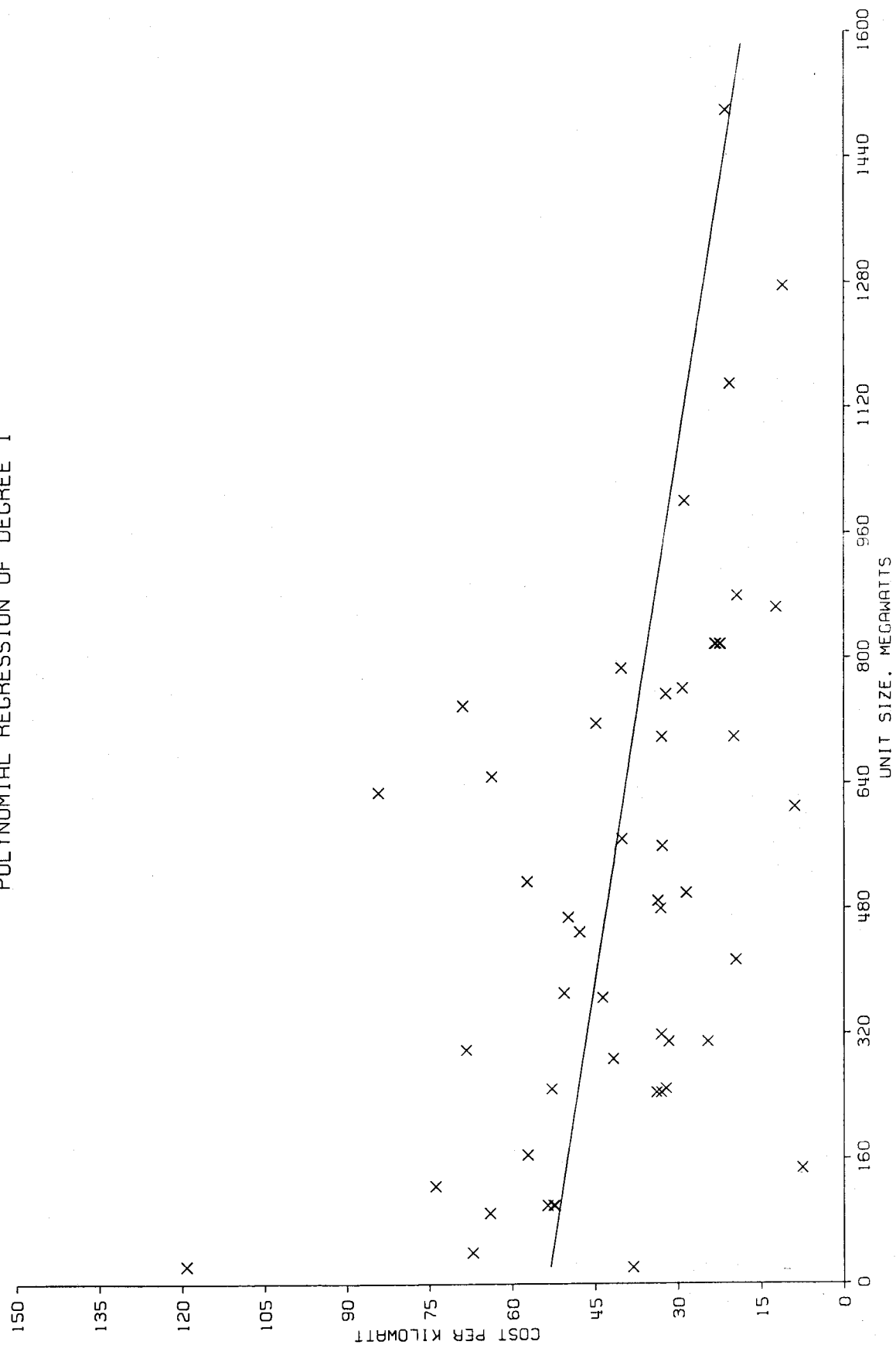
PLACEMENT BAND 1911-2001

EXPERIENCE BAND 1972-2001

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	111,341,395	15,632	0.0001	0.9999	100.00
0.5	113,495,930	67,997	0.0006	0.9994	99.99
1.5	106,857,796	54,014	0.0005	0.9995	99.93
2.5	97,800,616	30,758	0.0003	0.9997	99.88
3.5	93,304,203	79,786	0.0009	0.9991	99.85
4.5	86,361,681	388,963	0.0045	0.9955	99.76
5.5	78,128,541	735,316	0.0094	0.9906	99.31
6.5	75,650,869	1,258,978	0.0166	0.9834	98.38
7.5	69,997,294	1,720,145	0.0246	0.9754	96.75
8.5	67,948,776	991,574	0.0146	0.9854	94.37
9.5	63,140,411	1,970,707	0.0312	0.9688	92.99
10.5	56,825,602	5,095,257	0.0897	0.9103	90.09
11.5	41,763,827	3,035,451	0.0727	0.9273	82.01
12.5	35,052,261	1,827,478	0.0521	0.9479	76.05
13.5	32,633,330	3,673,741	0.1126	0.8874	72.09
14.5	27,586,977	954,729	0.0346	0.9654	63.97
15.5	20,418,164	1,524,797	0.0747	0.9253	61.76
16.5	17,884,676	1,304,589	0.0729	0.9271	57.15
17.5	16,027,829	716,226	0.0447	0.9553	52.98
18.5	15,083,269	548,432	0.0364	0.9636	50.61
19.5	12,898,556	251,026	0.0195	0.9805	48.77
20.5	12,408,395	659,891	0.0532	0.9468	47.82
21.5	9,781,996	1,794,696	0.1835	0.8165	45.28
22.5	7,805,917	882,071	0.1130	0.8870	36.97
23.5	6,351,972	792,150	0.1247	0.8753	32.79
24.5	4,825,454	1,101,059	0.2282	0.7718	28.70
25.5	3,571,183	2,509,049	0.7026	0.2974	22.15
26.5	1,018,352	67,279	0.0661	0.9339	6.59
27.5	1,086,668	95,255	0.0877	0.9123	6.15
28.5	974,923	21,614	0.0222	0.9778	5.61
29.5	1,039,429	101,011	0.0972	0.9028	5.49
30.5	844,560	146,086	0.1730	0.8270	4.96
31.5	701,244	230,802	0.3291	0.6709	4.10
32.5	104,678	10,005	0.0956	0.9044	2.75
33.5	92,939	90,814	0.9771	0.0229	2.49
34.5	2,125		0.0000	1.0000	0.06
35.5	2,125		0.0000	1.0000	0.06
36.5	2,125		0.0000	1.0000	0.06
37.5	2,125	2,125	1.0000	0.0000	0.06
38.5					0.00

APPENDIX B
NET SALVAGE STATISTICS

ARIZONA PUBLIC SERVICE COMPANY
 DECOMMISSIONING COSTS PER KW COMPARED WITH UNIT SIZE - COAL
 POLYNOMIAL REGRESSION OF DEGREE 1



ARIZONA PUBLIC SERVICE COMPANY

DECOMMISSIONING COSTS PER KW COMPARED WITH UNIT SIZE - COAL

TABLE OF RESIDUALS FOR POLYNOMIAL REGRESSION OF DEGREE 1

X VALUE	OBSERVED Y VALUE	ESTIMATED Y VALUE	RESIDUAL	RESIDUAL SQUARED
21.00	38.14	53.06	-14.92	222.5360
23.00	119.22	53.01	66.21	4383.2720
23.00	119.22	53.01	66.21	4383.2720
40.00	67.18	52.64	14.54	211.4009
40.00	67.18	52.64	14.54	211.4009
40.00	67.18	52.64	14.54	211.4009
40.00	67.18	52.64	14.54	211.4009
90.00	64.06	51.54	12.52	156.6931
100.00	52.26	51.32	.94	.8786
100.00	52.51	51.32	1.19	1.4097
100.00	53.60	51.32	2.28	5.1862
125.00	73.93	50.77	23.16	536.2176
148.00	7.56	50.27	-42.71	1824.0170
165.00	57.13	49.90	7.23	52.3429
245.00	33.05	48.14	-15.09	227.6547
245.00	33.90	48.14	-14.24	202.7271
250.00	32.20	48.03	-15.83	250.5388
250.00	52.86	48.03	4.83	23.3442
288.00	41.74	47.19	-5.45	29.7447
300.00	68.34	46.93	21.41	458.3736
310.00	24.67	46.71	-22.04	485.7933
310.00	31.73	46.71	-14.98	224.4220
319.00	33.07	46.51	-13.44	180.7160
366.00	43.67	45.48	-1.81	3.2792
372.00	50.61	45.35	5.26	27.6771
414.00	19.65	44.43	-24.78	613.8851
450.00	47.83	43.64	4.19	17.5889
469.00	49.87	43.22	6.65	44.2383
480.00	33.19	42.98	-9.79	95.7900
490.00	33.69	42.76	-9.07	82.2217
500.00	28.56	42.54	-13.98	195.3846
515.00	57.29	42.21	15.08	227.4494
560.00	32.89	41.22	-8.33	69.3940
569.00	40.15	41.02	-.87	.7615
610.00	8.96	40.12	-31.16	971.0840
630.00	84.33	39.68	44.65	1993.3560
650.00	63.76	39.24	24.52	601.0464
700.00	20.00	38.15	-18.15	329.2653
700.00	20.00	38.15	-18.15	329.2653
700.00	32.96	38.15	-5.19	26.8912
717.00	44.83	37.77	7.06	49.8109
717.00	44.83	37.77	7.06	49.8109
740.00	68.97	37.27	31.70	1005.0680
754.00	32.24	36.96	-4.72	22.2759
761.00	29.20	36.81	-7.61	57.8513
787.00	40.27	36.24	4.03	16.2812

ARIZONA PUBLIC SERVICE COMPANY

DECOMMISSIONING COSTS PER KW COMPARED WITH UNIT SIZE - COAL

TABLE OF RESIDUALS FOR POLYNOMIAL REGRESSION OF DEGREE 1

X VALUE	OBSERVED Y VALUE	ESTIMATED Y VALUE	RESIDUAL	RESIDUAL SQUARED
818.00	22.38	35.55	-13.17	173.5593
818.00	22.57	35.55	-12.98	168.5892
818.00	23.19	35.55	-12.36	152.8732
818.00	23.44	35.55	-12.11	146.7536
865.00	12.33	34.52	-22.19	492.4845
865.00	12.33	34.52	-22.19	492.4845
880.00	19.38	34.19	-14.81	219.4121
880.00	19.38	34.19	-14.81	219.4121
1001.00	28.82	31.54	-2.72	7.3723
1150.00	20.78	28.26	-7.48	55.9940
1150.00	20.78	28.26	-7.48	55.9940
1276.00	11.13	25.50	-14.37	206.3747
1500.00	21.58	20.58	1.00	1.0073
1987.00	23.34	9.88	13.46	181.1447
3145.00	24.64	-15.55	40.19	1615.2850
TOTAL			.00	25513.1600

ARIZONA PUBLIC SERVICE COMPANY

Decommissioning Costs Related to Coal-Fired Power Plants

Unit Number	Year In Service (2)	Estimated Retirement Year (3)	Mw (4)	Estimated Decommissioning Costs (\$/Kw) (5)	Total Decommissioning Costs (Current \$) (6)=(4)*(5)	Aps Share Decommissioning Costs (Current \$) (8)=(6)*(7)	Aps Share Decommissioning Costs (Future \$) (9)a	Original Cost at 12/31/01 (10)	Net Salvage (11)
Four Courmers									
1	1963	2016	170	49.79	8,464,300	100%	19,326,777		
2	1963	2016	170	49.79	8,464,300	100%	19,326,777		
3	1964	2016	220	48.69	10,711,800	100%	24,458,558		
4	1969	2031	740	37.27	27,579,800	15%	15,825,448		
5	1970	2031	740	37.27	27,579,800	15%	15,825,448		
Total Four Corners					82,800,000		94,763,008	398,820,562	23.76%
Cholla									
1	1962	2017	110	51.10	5,621,000	100%	13,283,800		
2	1978	2033	235	48.36	11,364,600	100%	46,570,242		
3	1980	2035	245	48.14	11,794,300	100%	51,773,463		
Total Cholla					28,779,900		111,627,505	515,667,469	21.65%
Navajo									
1	1974	2026	750	37.05	27,787,500	14%	12,529,952		
2	1975	2026	750	37.05	27,787,500	14%	12,529,952		
3	1976	2026	750	37.05	27,787,500	14%	12,529,952		
Total Navajo					83,362,500		37,589,856	231,948,895	16.21%
Grand Total					194,942,400		243,980,369	1,146,436,926	21.28%

a Column 9 = (Column 8) x (1.035)**(Estimated Retirement Year - 1992))

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1980	451,358	0	0	0
1981	15,566	0	0	0
1982	69,244	0	0	0
1983	101,400	0	0	0
1984	45,822	0	0	0
1985	112,833	0	0	0
1986	66,383	0	0	0
1987	15,260	0	0	0
1988	131,956	3,567- 3-	0	3,567 3
1989	18,310	4,833 26	0	4,833- 26-
1990	75,737	8,896 12	0	8,896- 12-
1991				
1992	291,422	34,527 12	432 0	34,095- 12-
1993	49,134	2,722 6	193 0	2,529- 5-
1994	235,796	28,201 12	8,494 4	19,707- 8-
1995	277,385	142,006 51	0	142,006- 51-
1996		75,014	953	74,061-
1997		145,288		145,288-
1998		52,853		52,853-
1999		4,027		4,027-
2000	210,080	109,661 52	0	109,661- 52-
2001	155,927	498,380 320	0	498,380-320-
TOTAL	2,323,613	1,102,841 47	10,072 0	1,092,769- 47-

THREE-YEAR MOVING AVERAGES

80-82	178,723	0	0	0
81-83	62,070	0	0	0
82-84	72,155	0	0	0
83-85	86,685	0	0	0
84-86	75,013	0	0	0
85-87	64,825	0	0	0
86-88	71,200	1,189- 2-	0	1,189 2
87-89	55,175	422 1	0	422- 1-
88-90	75,334	3,387 4	0	3,387- 4-
89-91	31,349	4,576 15	0	4,576- 15-
90-92	122,386	14,474 12	144 0	14,330- 12-
91-93	113,519	12,416 11	208 0	12,208- 11-
92-94	192,117	21,817 11	3,040 2	18,777- 10-
93-95	187,438	57,643 31	2,896 2	54,747- 29-
94-96	171,060	81,740 48	3,149 2	78,591- 46-
95-97	92,462	120,769 131	318 0	120,451-130-

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
THREE-YEAR MOVING AVERAGES				
96-98		91,051	318	90,733-
97-99		67,389		67,389-
98-00	70,027	55,514 79	0	55,514- 79-
99-01	122,002	204,023 167	0	204,023-167-
FIVE-YEAR AVERAGE				
97-01	73,201	162,042 221	0	162,042-221-

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 312 BOILER PLANT EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1980	2,116,879	0	0	0
1981	1,417,267	0	0	0
1982	2,030,065	0	0	0
1983	5,144,480	0	0	0
1984	966,880	0	0	0
1985	202,755	0	0	0
1986	2,499,565	0	0	0
1987	1,169,925	0	0	0
1988	891,560	338,670 38	80,370 9	258,300- 29-
1989	7,128,907	472,793 7	0	472,793- 7-
1990	5,717,136	78,243 1	0	78,243- 1-
1991	2,025,337	458,901 23	15,683 1	443,218- 22-
1992	2,457,234	315,728 13	16,360 1	299,368- 12-
1993	724,778	56,793 8	0	56,793- 8-
1994	1,561,595	130,565 8	82,789 5	47,776- 3-
1995	227,493	18,273 8	3,412 1	14,861- 7-
1996		660-	172	832
1997	8,176,947	25,274 0	10,894- 0	36,168- 0
1998	1,180,280	12,676 1	0	12,676- 1-
1999	649,178	715,280 110	12,617 2	702,663-108-
2000	3,405,873	778,895 23	2,245 0	776,650- 23-
2001	6,813,284	1,734,040 25	19,026 0	1,715,014- 25-
TOTAL	56,507,418	5,135,471 9	221,780 0	4,913,691- 9-

THREE-YEAR MOVING AVERAGES

80-82	1,854,737	0	0	0
81-83	2,863,937	0	0	0
82-84	2,713,808	0	0	0
83-85	2,104,705	0	0	0
84-86	1,223,067	0	0	0
85-87	1,290,748	0	0	0
86-88	1,520,350	112,890 7	26,790 2	86,100- 6-
87-89	3,063,464	270,488 9	26,790 1	243,698- 8-
88-90	4,579,201	296,569 6	26,790 1	269,779- 6-
89-91	4,957,127	336,646 7	5,228 0	331,418- 7-
90-92	3,399,902	284,291 8	10,681 0	273,610- 8-
91-93	1,735,783	277,141 16	10,681 1	266,460- 15-
92-94	1,581,202	167,695 11	33,050 2	134,645- 9-
93-95	837,955	68,544 8	28,734 3	39,810- 5-
94-96	596,363	49,393 8	28,791 5	20,602- 3-
95-97	2,801,480	14,296 1	2,437- 0	16,733- 1-

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 312 BOILER PLANT EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
THREE-YEAR MOVING AVERAGES				
96-98	3,119,076	12,430 0	3,574- 0	16,004- 1-
97-99	3,335,468	251,077 8	574 0	250,503- 8-
98-00	1,745,110	502,284 29	4,954 0	497,330- 28-
99-01	3,622,778	1,076,072 30	11,296 0	1,064,776- 29-

FIVE-YEAR AVERAGE

97-01	4,045,112	653,233 16	4,599 0	648,634- 16-
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ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 314 TURBOGENERATOR UNITS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1980	331,238	0	0	0
1981	26,700	0	0	0
1982				
1983	1,188,424	0	0	0
1984	50,000	0	0	0
1985				
1986	1,114,644	0	0	0
1987	872,096	0	0	0
1988	178,434	51,290 29	55,182 31	3,892 2
1989	946,156	173,105 18	25,798- 3-	198,903- 21-
1990	15,184	1,104 7	0	1,104- 7-
1991	354,423	29,011 8	0	29,011- 8-
1992	386,032	21,419 6	1,103 0	20,316- 5-
1993	394,764	21,160 5	2,793 1	18,367- 5-
1994	326,247	68,809 21	53,356 16	15,453- 5-
1995	401,233	47,530 12	0	47,530- 12-
1996		31,732	196	31,536-
1997	60,631	3,853 6	0	3,853- 6-
1998				
1999	102,629	57,074 56	0	57,074- 56-
2000	129,463	79,256 61	0	79,256- 61-
2001	5,947,911	507,941 9	1,075 0	506,866- 9-
TOTAL	12,826,209	1,093,284 9	87,907 1	1,005,377- 8-

THREE-YEAR MOVING AVERAGES

80-82	119,313	0	0	0
81-83	405,041	0	0	0
82-84	412,808	0	0	0
83-85	412,808	0	0	0
84-86	388,215	0	0	0
85-87	662,247	0	0	0
86-88	721,725	17,097 2	18,394 3	1,297 0
87-89	665,562	74,798 11	9,795 1	65,003- 10-
88-90	379,925	75,166 20	9,795 3	65,371- 17-
89-91	438,588	67,740 15	8,599- 2-	76,339- 17-
90-92	251,880	17,178 7	368 0	16,810- 7-
91-93	378,406	23,863 6	1,299 0	22,564- 6-
92-94	369,014	37,129 10	19,084 5	18,045- 5-
93-95	374,081	45,833 12	18,716 5	27,117- 7-
94-96	242,493	49,357 20	17,851 7	31,506- 13-
95-97	153,955	27,705 18	65 0	27,640- 18-

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 314 TURBOGENERATOR UNITS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
THREE-YEAR MOVING AVERAGES				
96-98	20,210	11,862 59	65 0	11,797- 58-
97-99	54,420	20,309 37	0	20,309- 37-
98-00	77,364	45,443 59	0	45,443- 59-
99-01	2,060,001	214,757 10	358 0	214,399- 10-
FIVE-YEAR AVERAGE				
97-01	1,248,127	129,625 10	215 0	129,410- 10-

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1980	816	0	0	0
1981	8,435	0	0	0
1982	710,500	0	0	0
1983	102,672	0	0	0
1984	229,253	0	0	0
1985	143,000	0	0	0
1986	195,459	0	0	0
1987	2,298,450	0	0	0
1988	171,078	18,663 11	1,507 1	17,156- 10-
1989	67,475	8,298 12	0	8,298- 12-
1990	500,127	14,901 3	0	14,901- 3-
1991	84,952	4,388 5	0	4,388- 5-
1992	918,509	32,877 4	0	32,877- 4-
1993	107,279	6,312 6	0	6,312- 6-
1994	94,542	6,129 6	14,259 15	8,130 9
1995	402,374	108,041 27	45,628 11	62,413- 16-
1996		806	2,404	1,598
1997	194,602	93 0	0	93- 0
1998	476,467	0	0	0
1999	72,122	5,795 8	0	5,795- 8-
2000		286,711	94-	286,805-
2001	192,305	312,230 162	0	312,230-162-
TOTAL	6,970,417	805,244 12	63,704 1	741,540- 11-

THREE-YEAR MOVING AVERAGES

80-82	239,917	0	0	0
81-83	273,869	0	0	0
82-84	347,475	0	0	0
83-85	158,308	0	0	0
84-86	189,237	0	0	0
85-87	878,970	0	0	0
86-88	888,329	6,221 1	502 0	5,719- 1-
87-89	845,668	8,987 1	502 0	8,485- 1-
88-90	246,227	13,954 6	502 0	13,452- 5-
89-91	217,518	9,196 4	0	9,196- 4-
90-92	501,196	17,389 3	0	17,389- 3-
91-93	370,247	14,526 4	0	14,526- 4-
92-94	373,443	15,106 4	4,753 1	10,353- 3-
93-95	201,398	40,161 20	19,962 10	20,199- 10-
94-96	165,639	38,325 23	20,764 13	17,561- 11-
95-97	198,992	36,313 18	16,011 8	20,302- 10-

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
THREE-YEAR MOVING AVERAGES				
96-98	223,690	300 0	801 0	501 0
97-99	247,730	1,963 1	0	1,963- 1-
98-00	182,863	97,502 53	31- 0	97,533- 53-
99-01	88,142	201,579 229	31- 0	201,610-229-
FIVE-YEAR AVERAGE				
97-01	187,099	120,966 65	19- 0	120,985- 65-

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1980	59,719	0	0	0
1981	387,518	0	0	0
1982	288,480-	0	0	0
1983	65,378	0	0	0
1984	137,887	0	0	0
1985	81,549	0	0	0
1986	81,664	0	0	0
1987	498,061	0	0	0
1988	2,434,238	50,597 2	57,156 2	6,559 0
1989	2,147,033-	31,164 1-	11,739- 1	42,903- 2
1990	259,871	50,256 19	14,019 5	36,237- 14-
1991	314,266	36,620 12	28,686 9	7,934- 3-
1992	51,329	39,208 76	1,269 2	37,939- 74-
1993	31,128	697 2	97,002 312	96,305 309
1994	810,788	45,361 6	20,512 3	24,849- 3-
1995		133	20,199	20,066
1996			1,021	1,021
1997	2,691	0	277 10	277 10
1998	45,988	0	0	0
1999				
2000	190,058	338,494 178	49- 0	338,543-178-
2001	447,670	64,540 14	3,581 1	60,959- 14-
TOTAL	3,464,290	657,070 19	231,934 7	425,136- 12-

THREE-YEAR MOVING AVERAGES

80-82	52,919	0	0	0
81-83	54,805	0	0	0
82-84	28,405-	0	0	0
83-85	94,938	0	0	0
84-86	100,367	0	0	0
85-87	220,425	0	0	0
86-88	1,004,654	16,866 2	19,052 2	2,186 0
87-89	261,755	27,254 10	15,139 6	12,115- 5-
88-90	182,359	44,006 24	19,812 11	24,194- 13-
89-91	524,299-	39,347 8-	10,322 2-	29,025- 6
90-92	208,489	42,028 20	14,658 7	27,370- 13-
91-93	132,241	25,508 19	42,319 32	16,811 13
92-94	297,748	28,422 10	39,594 13	11,172 4
93-95	280,639	15,397 5	45,904 16	30,507 11
94-96	270,263	15,165 6	13,911 5	1,254- 0
95-97	897	44 5	7,166 799	7,122 794

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
THREE-YEAR MOVING AVERAGES				
96-98	16,226	0	433 3	433 3
97-99	16,226	0	92 1	92 1
98-00	78,682	112,831 143	16- 0	112,847-143-
99-01	212,576	134,345 63	1,177 1	133,168- 63-

FIVE-YEAR AVERAGE

97-01	137,281	80,607 59	762 1	79,845- 58-
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ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 321 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1988	211,951	0	0	0
1989	38,814	234 1	0	234- 1-
1990	413,702	11,111 3	0	11,111- 3-
1991	398,361	406- 0	0	406 0
1992	616,424	2,787 0	33,431 5	30,644 5
1993	898,813	12,334 1	216,914 24	204,580 23
1994	444,774	23,082 5	0	23,082- 5-
1995	181,856	7,089 4	1,002 1	6,087- 3-
1996		10,680		10,680-
1997	220,375	5,918 3	3,932 2	1,986- 1-
1998	4,879,659	210,023 4	52,158 1	157,865- 3-
1999	3,558,837	29,507 1	2,787- 0	32,294- 1-
2000	460,395	4,053 1	776 0	3,277- 1-
2001	374,905	1,260 0	1,163 0	97- 0
TOTAL	12,698,866	317,672 3	306,589 2	11,083- 0

THREE-YEAR MOVING AVERAGES

88-90	221,489	3,782 2	0	3,782- 2-
89-91	283,626	3,646 1	0	3,646- 1-
90-92	476,162	4,497 1	11,144 2	6,647 1
91-93	637,866	4,905 1	83,448 13	78,543 12
92-94	653,337	12,734 2	83,448 13	70,714 11
93-95	508,481	14,168 3	72,639 14	58,471 11
94-96	208,877	13,617 7	334 0	13,283- 6-
95-97	134,077	7,896 6	1,645 1	6,251- 5-
96-98	1,700,011	75,540 4	18,696 1	56,844- 3-
97-99	2,886,290	81,816 3	17,767 1	64,049- 2-
98-00	2,966,297	81,194 3	16,716 1	64,478- 2-
99-01	1,464,712	11,607 1	282- 0	11,889- 1-

FIVE-YEAR AVERAGE

97-01	1,898,834	50,152 3	11,048 1	39,104- 2-
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ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 322 REACTOR PLANT EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1988	7,008,336	16,542	0		0	16,542-	0
1989	552,119	55,825	10	45,963	8	9,862-	2-
1990	11,157,106	29,637-	0	1,446,704	13	1,476,341	13
1991	1,150,690	519,884	45	465,373-	40-	985,257-	86-
1992	6,404,964	185,454	3	445,132-	7-	630,586-	10-
1993	3,619,994	49,675	1	873,626	24	823,951	23
1994	2,602,348	131,323	5		0	131,323-	5-
1995	3,252,869	98,852	3	17,921	1	80,931-	2-
1996		191,035				191,035-	
1997	1,887,625	8,412	0	6,614	0	1,798-	0
1998	9,895,213	87,387	1	678	0	86,709-	1-
1999	1,141,831	338,732	30		0	338,732-	30-
2000	932,468	44,184	5		0	44,184-	5-
2001	5,347,000	974,159	18	4,803	0	969,356-	18-
TOTAL	54,952,563	2,671,827	5	1,485,804	3	1,186,023-	2-

THREE-YEAR MOVING AVERAGES

88-90	6,239,187	14,243	0	497,556	8	483,313	8
89-91	4,286,638	182,024	4	342,431	8	160,407	4
90-92	6,237,587	225,234	4	178,733	3	46,501-	1-
91-93	3,725,216	251,671	7	12,293-	0	263,964-	7-
92-94	4,209,102	122,151	3	142,831	3	20,680	0
93-95	3,158,404	93,283	3	297,182	9	203,899	6
94-96	1,951,739	140,403	7	5,974	0	134,429-	7-
95-97	1,713,498	99,433	6	8,178	0	91,255-	5-
96-98	3,927,613	95,611	2	2,431	0	93,180-	2-
97-99	4,308,223	144,843	3	2,431	0	142,412-	3-
98-00	3,989,837	156,767	4	226	0	156,541-	4-
99-01	2,473,767	452,358	18	1,601	0	450,757-	18-

FIVE-YEAR AVERAGE

97-01	3,840,828	290,575	8	2,419	0	288,156-	8-
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ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 323 TURBOGENERATOR UNITS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1988	327,181		0	0
1989	438,936	2,414 1	0	2,414- 1-
1990	129,422	48 0	0	48- 0
1991	508,241	91,924 18	0	91,924- 18-
1992	2,297,778	69,687 3	0	69,687- 3-
1993	279,378	3,834 1	67,423 24	63,589 23
1994	1,677,331	84,644 5	0	84,644- 5-
1995	962,037	29,236 3	5,300 1	23,936- 2-
1996		56,499		56,499-
1997	718,199	815 0	0	815- 0
1998	4,254,130	28,486 1	0	28,486- 1-
1999	63,292	16,398 26	0	16,398- 26-
2000	658,116	2,339- 0	0	2,339 0
2001	1,620,213	438,718 27	0	438,718- 27-
TOTAL	13,934,254	820,364 6	72,723 1	747,641- 5-

THREE-YEAR MOVING AVERAGES

88-90	298,513	821 0	0	821- 0
89-91	358,866	31,462 9	0	31,462- 9-
90-92	978,480	53,886 6	0	53,886- 6-
91-93	1,028,466	55,148 5	22,474 2	32,674- 3-
92-94	1,418,162	52,721 4	22,474 2	30,247- 2-
93-95	972,915	39,238 4	24,241 2	14,997- 2-
94-96	879,789	56,793 6	1,767 0	55,026- 6-
95-97	560,079	28,850 5	1,767 0	27,083- 5-
96-98	1,657,443	28,600 2	0	28,600- 2-
97-99	1,678,540	15,233 1	0	15,233- 1-
98-00	1,658,513	14,181 1	0	14,181- 1-
99-01	780,540	150,925 19	0	150,925- 19-

FIVE-YEAR AVERAGE

97-01	1,462,790	96,415 7	0	96,415- 7-
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ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 324 ACCESSORY ELECTRIC EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1988	73,028	0	0	0
1989	414,957	2,441 1	1,815 0	626- 0
1990	654,806	3,448 1	0	3,448- 1-
1991	27,139	787- 3-	0	787 3
1992	620,339	52,465 8	0	52,465- 8-
1993	68,521	940 1	16,536 24	15,596 23
1994	130,769	6,599 5	0	6,599- 5-
1995	3,238	98 3	18 1	80- 2-
1996		190		190-
1997				
1998	891,291	28,589 3	5,865 1	22,724- 3-
1999	2,110	587 28	0	587- 28-
2000	54,691	13,803 25	0	13,803- 25-
2001	296,956	70,074 24	0	70,074- 24-
TOTAL	3,237,845	178,447 6	24,234 1	154,213- 5-

THREE-YEAR MOVING AVERAGES

88-90	380,930	1,963 1	605 0	1,358- 0
89-91	365,634	1,701 0	605 0	1,096- 0
90-92	434,095	18,375 4	0	18,375- 4-
91-93	238,666	17,539 7	5,512 2	12,027- 5-
92-94	273,210	20,001 7	5,512 2	14,489- 5-
93-95	67,509	2,546 4	5,518 8	2,972 4
94-96	44,669	2,296 5	6 0	2,290- 5-
95-97	1,079	96 9	6 1	90- 8-
96-98	297,097	9,593 3	1,955 1	7,638- 3-
97-99	297,800	9,725 3	1,955 1	7,770- 3-
98-00	316,031	14,326 5	1,955 1	12,371- 4-
99-01	117,919	28,154 24	0	28,154- 24-

FIVE-YEAR AVERAGE

97-01	249,010	22,610 9	1,173 0	21,437- 9-
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ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 325 MISCELLANEOUS POWER PLANT EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1988	61,364	2,809 5	81,562 133	78,753 128
1989				
1990	159,497	3,810 2	0	3,810- 2-
1991	251,814	135 0	135 0	0
1992	151,742	9,755 6	37,726 25	27,971 18
1993	5,579,661	76,567 1	1,346,560 24	1,269,993 23
1994	5,874,215	296,632 5	0	296,632- 5-
1995				
1996				
1997	3,131	0	72 2	72 2
1998	1,498,420	66,483 4	16,612 1	49,871- 3-
1999	3,406,347	7,871 0	2,712- 0	10,583- 0
2000	16,527,538	177,530 1	25,580 0	151,950- 1-
2001	4,685,473	495,818 11	9,298 0	486,520- 10-
TOTAL	38,199,202	1,137,410 3	1,514,833 4	377,423 1

THREE-YEAR MOVING AVERAGES

88-90	73,620	2,206 3	27,187 37	24,981 34
89-91	137,104	1,315 1	45 0	1,270- 1-
90-92	187,684	4,567 2	12,620 7	8,053 4
91-93	1,994,406	28,819 1	461,474 23	432,655 22
92-94	3,868,539	127,651 3	461,429 12	333,778 9
93-95	3,817,959	124,400 3	448,853 12	324,453 8
94-96	1,958,072	98,877 5	0	98,877- 5-
95-97	1,044	0	24 2	24 2
96-98	500,517	22,161 4	5,561 1	16,600- 3-
97-99	1,635,966	24,785 2	4,657 0	20,128- 1-
98-00	7,144,101	83,961 1	13,160 0	70,801- 1-
99-01	8,206,453	227,073 3	10,722 0	216,351- 3-

FIVE-YEAR AVERAGE

97-01	5,224,182	149,540 3	9,770 0	139,770- 3-
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ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 341 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1983	900	0	0	0
1984				
1985				
1986				
1987	38,826	0	0	0
1988				
1989				
1990				
1991				
1992		13,000		13,000-
1993				
1994	14,269	538- 4-	0	538 4
1995	3	0	9 300	9 300
1996		2		2-
1997		1		1-
1998				
1999				
2000	23,200	0	0	0
2001				
TOTAL	77,198	12,465 16	9 0	12,456- 16-

THREE-YEAR MOVING AVERAGES

83-85	300	0	0	0
84-86				
85-87	12,942	0	0	0
86-88	12,942	0	0	0
87-89	12,942	0	0	0
88-90				
89-91				
90-92		4,333		4,333-
91-93		4,333		4,333-
92-94	4,756	4,154 87	0	4,154- 87-
93-95	4,757	179- 4-	3 0	182 4
94-96	4,757	179- 4-	3 0	182 4
95-97	1	1 100	3 300	2 200
96-98		1		1-
97-99				
98-00	7,733	0	0	0
99-01	7,733	0	0	0

FIVE-YEAR AVERAGE

97-01	4,640	0	0	0
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ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 342 FUEL HOLDERS, PRODUCTS AND ACCESSORIES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1983	3,000	0	0	0
1984				
1985				
1986	10,580	0	0	0
1987				
1988				
1989				
1990	26,220	254 1	0	254- 1-
1991	230,973	11,655 5	4,322 2	7,333- 3-
1992	41,437	0	0	0
1993	184,925	24,835 13	26,887 15	2,052 1
1994	65,794	3,471 5	0	3,471- 5-
1995				
1996				
1997				
1998				
1999				
2000				
2001				
TOTAL	562,929	40,215 7	31,209 6	9,006- 2-

THREE-YEAR MOVING AVERAGES

83-85	1,000	0	0	0
84-86	3,527	0	0	0
85-87	3,527	0	0	0
86-88	3,527	0	0	0
87-89				
88-90	8,740	85 1	0	85- 1-
89-91	85,731	3,970 5	1,441 2	2,529- 3-
90-92	99,543	3,970 4	1,441 1	2,529- 3-
91-93	152,445	12,163 8	10,403 7	1,760- 1-
92-94	97,385	9,435 10	8,962 9	473- 0
93-95	83,573	9,435 11	8,962 11	473- 1-
94-96	21,931	1,157 5	0	1,157- 5-
95-97				
96-98				
97-99				
98-00				
99-01				

FIVE-YEAR AVERAGE

97-01

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 343 PRIME MOVERS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1982	324,806	0	0	0
1983				
1984				
1985				
1986				
1987				
1988				
1989				
1990				
1991				
1992	800,930	36,508 5	0	36,508- 5-
1993				
1994				
1995				
1996				
1997				
1998				
1999	96,461	16,221 17	0	16,221- 17-
2000				
2001	367,510	112,670 31	0	112,670- 31-
TOTAL	1,589,707	165,399 10	0	165,399- 10-

THREE-YEAR MOVING AVERAGES

82-84	108,269	0	0	0
83-85				
84-86				
85-87				
86-88				
87-89				
88-90				
89-91				
90-92	266,977	12,169 5	0	12,169- 5-
91-93	266,977	12,169 5	0	12,169- 5-
92-94	266,977	12,169 5	0	12,169- 5-
93-95				
94-96				
95-97				
96-98				
97-99	32,154	5,407 17	0	5,407- 17-
98-00	32,154	5,407 17	0	5,407- 17-
99-01	154,657	42,963 28	0	42,963- 28-

FIVE-YEAR AVERAGE

97-01	92,794	25,778 28	0	25,778- 28-
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ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 344 GENERATORS AND DEVICES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1980	5,089	0	0	0
1981	235,355	0	0	0
1982				
1983	133,000	0	0	0
1984				
1985				
1986	192,621	0	0	0
1987	66,889	0	0	0
1988	296,240	0	0	0
1989	238,050	0	0	0
1990				
1991		16,671		16,671-
1992	158,334	23,762 15	0	23,762- 15-
1993	699,859	151,167 22	43,087 6	108,080- 15-
1994	436,512	25,277 6	0	25,277- 6-
1995	224,378	10,335 5	657,203 293	646,868 288
1996		123,081		123,081-
1997		71,642		71,642-
1998		1,159		1,159-
1999				
2000	1,330,919	3,150 0	0	3,150- 0
2001	295,240	101,957 35	0	101,957- 35-
TOTAL	4,312,486	528,201 12	700,290 16	172,089 4

THREE-YEAR MOVING AVERAGES

80-82	80,148	0	0	0
81-83	122,785	0	0	0
82-84	44,333	0	0	0
83-85	44,333	0	0	0
84-86	64,207	0	0	0
85-87	86,503	0	0	0
86-88	185,250	0	0	0
87-89	200,393	0	0	0
88-90	178,097	0	0	0
89-91	79,350	5,557 7	0	5,557- 7-
90-92	52,778	13,478 26	0	13,478- 26-
91-93	286,064	63,867 22	14,362 5	49,505- 17-
92-94	431,568	66,735 15	14,362 3	52,373- 12-
93-95	453,583	62,259 14	233,430 51	171,171 38
94-96	220,297	52,898 24	219,068 99	166,170 75
95-97	74,793	68,352 91	219,068 293	150,716 202

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 344 GENERATORS AND DEVICES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
THREE-YEAR MOVING AVERAGES				
96-98		65,294		65,294-
97-99		24,267		24,267-
98-00	443,640	1,436 0	0	1,436- 0
99-01	542,053	35,036 6	0	35,036- 6-
FIVE-YEAR AVERAGE				
97-01	325,232	35,582 11	0	35,582- 11-

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 345 ACCESSORY ELECTRIC EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1980	2,500	0	0	0
1981				
1982				
1983				
1984	120,000	0	0	0
1985	15,453	0	0	0
1986				
1987	14,517	0	0	0
1988				
1989				
1990	81,995	516 1	0	516- 1-
1991	14,468	26,640 184	0	26,640-184-
1992				
1993	29,497	1,279 4	0	1,279- 4-
1994	225,535	1,454- 1-	0	1,454 1
1995				
1996				
1997				
1998				
1999				
2000	53,090	16,000 30	0	16,000- 30-
2001		414,000		414,000-
TOTAL	557,055	456,981 82	0	456,981- 82-

THREE-YEAR MOVING AVERAGES

80-82	833	0	0	0
81-83				
82-84	40,000	0	0	0
83-85	45,151	0	0	0
84-86	45,151	0	0	0
85-87	9,990	0	0	0
86-88	4,839	0	0	0
87-89	4,839	0	0	0
88-90	27,332	172 1	0	172- 1-
89-91	32,154	9,052 28	0	9,052- 28-
90-92	32,154	9,052 28	0	9,052- 28-
91-93	14,655	9,306 64	0	9,306- 64-
92-94	85,011	58- 0	0	58- 0
93-95	85,011	58- 0	0	58 0
94-96	75,178	485- 1-	0	485 1
95-97				

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 345 ACCESSORY ELECTRIC EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
THREE-YEAR MOVING AVERAGES				
96-98				
97-99				
98-00	17,697	5,333 30	0	5,333- 30-
99-01	17,697	143,333 810	0	143,333-810-
FIVE-YEAR AVERAGE				
97-01	10,618	86,000 810	0	86,000-810-

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 346 MISCELLANEOUS POWER PLANT EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1985	3,000	0	0	0
1986				
1987	161,389	0	0	0
1988				
1989				
1990				
1991				
1992	7,301	1,290 18	0	1,290- 18-
1993				
1994				
1995				
1996				
1997				
1998				
1999				
2000	25,000	12,914 52	0	12,914- 52-
2001	14,994	5,178 35	0	5,178- 35-
TOTAL	211,684	19,382 9	0	19,382- 9-

THREE-YEAR MOVING AVERAGES

85-87	54,796	0	0	0
86-88	53,796	0	0	0
87-89	53,796	0	0	0
88-90				
89-91				
90-92	2,434	430 18	0	430- 18-
91-93	2,434	430 18	0	430- 18-
92-94	2,434	430 18	0	430- 18-
93-95				
94-96				
95-97				
96-98				
97-99				
98-00	8,333	4,305 52	0	4,305- 52-
99-01	13,331	6,031 45	0	6,031- 45-

FIVE-YEAR AVERAGE

97-01	7,999	3,618 45	0	3,618- 45-
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ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 352 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1981	7,769	0	0	0
1982				
1983				
1984	23,172	0	0	0
1985				
1986	9,555	0	0	0
1987	11,879	0	0	0
1988	103	0	3 3	3 3
1989	23,438	2,579 11	5,475 23	2,896 12
1990	23,438-	574- 2	105- 0	469 2-
1991	36,862	10,399 28	2,698 7	7,701- 21-
1992	9,127	2,276 25	209 2	2,067- 23-
1993	54,554	0	0	0
1994	54,180	0	0	0
1995	33,473	0	0	0
1996				
1997				
1998				
1999	10,062	0	0	0
2000	40,153	0	0	0
2001				
TOTAL	290,889	14,680 5	8,280 3	6,400- 2-

THREE-YEAR MOVING AVERAGES

81-83	2,590	0	0	0
82-84	7,724	0	0	0
83-85	7,724	0	0	0
84-86	10,909	0	0	0
85-87	7,145	0	0	0
86-88	7,179	0	1 0	1 0
87-89	11,807	860 7	1,826 15	966 8
88-90	34	668	1,791	1,123
89-91	12,287	4,135 34	2,689 22	1,446- 12-
90-92	7,517	4,034 54	934 12	3,100- 41-
91-93	33,514	4,225 13	969 3	3,256- 10-
92-94	39,287	759 2	70 0	689- 2-
93-95	47,402	0	0	0
94-96	29,218	0	0	0
95-97	11,158	0	0	0
96-98				
97-99	3,354	0	0	0

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 352 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
THREE-YEAR MOVING AVERAGES				
98-00	16,738	0	0	0
99-01	16,738	0	0	0
FIVE-YEAR AVERAGE				
97-01	10,043	0	0	0

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 353 STATION EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1980	125,483	0	0	0
1981	275,556	0	0	0
1982	407,743	0	0	0
1983	469,645	0	0	0
1984	204,881	0	0	0
1985	319,608	0	0	0
1986	784,405	0	0	0
1987	816,410	0	0	0
1988	2,026,183	58,698 3	1,369,474 68	1,310,776 65
1989	1,422,638	86,903 6	251,449 18	164,546 12
1990	1,843,274	75,443 4	432,307 23	356,864 19
1991	952,849	157,585 17	472,908 50	315,323 33
1992	2,591,893	132,551 5	257,624 10	125,073 5
1993	2,249,789	197,931 9	47,326 2	150,605- 7-
1994	1,080,778	220,445 20	7,144- 1-	227,589- 21-
1995	195,122	39,393 20	56,636 29	17,243 9
1996	9,275	74,642 805	35,165 379	39,477-426-
1997	240,952	113,233 47	25,064 10	88,169- 37-
1998	330,081	3,180 1	538,635 163	535,455 162
1999	882,449	1,027- 0	1,069,324 121	1,070,351 121
2000	2,786,516	14,265 1	446,373 16	432,108 16
2001	2,369,789	874,679 37	309,923- 13-	1,184,602- 50-
TOTAL	22,385,319	2,047,921 9	4,685,218 21	2,637,297 12

THREE-YEAR MOVING AVERAGES

80-82	269,594	0	0	0
81-83	384,315	0	0	0
82-84	360,756	0	0	0
83-85	331,378	0	0	0
84-86	436,298	0	0	0
85-87	640,141	0	0	0
86-88	1,208,999	19,566 2	456,491 38	436,925 36
87-89	1,421,744	48,534 3	540,308 38	491,774 35
88-90	1,764,032	73,681 4	684,410 39	610,729 35
89-91	1,406,254	106,644 8	385,555 27	278,911 20
90-92	1,796,005	121,860 7	387,613 22	265,753 15
91-93	1,931,510	162,689 8	259,286 13	96,597 5
92-94	1,974,153	183,642 9	99,269 5	84,373- 4-
93-95	1,175,230	152,590 13	32,273 3	120,317- 10-
94-96	428,392	111,493 26	28,219 7	83,274- 19-
95-97	148,450	75,756 51	38,955 26	36,801- 25-

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 353 STATION EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
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THREE-YEAR MOVING AVERAGES

96-98	193,436	63,685 33	199,621 103	135,936 70
97-99	484,494	38,462 8	544,341 112	505,879 104
98-00	1,333,015	5,473 0	684,777 51	679,304 51
99-01	2,012,918	295,972 15	401,925 20	105,953 5

FIVE-YEAR AVERAGE

97-01	1,321,957	200,866 15	353,895 27	153,029 12
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ARIZONA PUBLIC SERVICE COMPANY

ACCOUNTS 354, 355 & 356 TOWERS, POLES & OVERHEAD CONDUCTORS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1980	517,619	303,170 59	192,023 37	111,147- 21-
1981	229,929	287,395 125	329,140 143	41,745 18
1982	331,261	378,015 114	323,922 98	54,093- 16-
1983	1,001,241	338,682 34	286,023 29	52,659- 5-
1984	206,395-	347,556 168-	179,758 87-	167,798- 81
1985	644,517	538,352 84	128,457 20	409,895- 64-
1986	585,840	616,790 105	268,556 46	348,234- 59-
1987	2,148,690	489,896 23	269,361 13	220,535- 10-
1988	772,941	630,127 82	593,102 77	37,025- 5-
1989	671,628	1,504,302 224	1,374,554 205	129,748- 19-
1990	2,409,924	159,810 7	864,595 36	704,785 29
1991	1,718,190	352,997 21	2,619,081 152	2,266,084 132
1992	510,971	298,217 58	151,582 30	146,635- 29-
1993	1,348,534	628,431 47	935,390 69	306,959 23
1994	980,102	558,714 57	148,931 15	409,783- 42-
1995	1,082,150	644,686 60	652,815 60	8,129 1
1996		528,267	87,549	440,718-
1997	671,273	125,482 19	311,461 46	185,979 28
1998	613,629	27,871 5	283,603 46	255,732 42
1999	759,356	25,074 3	190,406 25	165,332 22
2000	512,480	950,115 185	1,769,470 345	819,355 160
2001	2,833,169	2,090,623 74	1,730,051 61	360,572- 13-
TOTAL	20,137,049	11,824,572 59	13,689,830 68	1,865,258 9

THREE-YEAR MOVING AVERAGES

80-82	359,603	322,860 90	281,695 78	41,165- 11-
81-83	520,810	334,697 64	313,028 60	21,669- 4-
82-84	375,369	354,751 95	263,234 70	91,517- 24-
83-85	479,788	408,197 85	198,079 41	210,118- 44-
84-86	341,321	500,899 147	192,257 56	308,642- 90-
85-87	1,126,349	548,346 49	222,125 20	326,221- 29-
86-88	1,169,157	578,938 50	377,006 32	201,932- 17-
87-89	1,197,753	874,775 73	745,672 62	129,103- 11-
88-90	1,284,831	764,746 60	944,084 73	179,338 14
89-91	1,599,914	672,370 42	1,619,410 101	947,040 59
90-92	1,546,362	270,341 17	1,211,753 78	941,412 61
91-93	1,192,565	426,548 36	1,235,351 104	808,803 68
92-94	946,536	495,121 52	411,968 44	83,153- 9-
93-95	1,136,929	610,610 54	579,045 51	31,565- 3-
94-96	687,417	577,222 84	296,432 43	280,790- 41-
95-97	584,474	432,812 74	350,609 60	82,203- 14-

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNTS 354, 355 & 356 TOWERS, POLES & OVERHEAD CONDUCTORS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
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THREE-YEAR MOVING AVERAGES

96-98	428,301	227,207 53	227,538 53	331 0
97-99	681,419	59,476 9	261,824 38	202,348 30
98-00	628,488	334,353 53	747,827 119	413,474 66
99-01	1,368,335	1,021,937 75	1,229,976 90	208,039 15

FIVE-YEAR AVERAGE

97-01	1,077,982	643,833 60	856,998 80	213,165 20
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ARIZONA PUBLIC SERVICE COMPANY
ACCOUNTS 357 & 358 UNDERGROUND CONDUIT AND CONDUCTORS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1980	103,646	0	0	0
1981				
1982				
1983				
1984	120	0	0	0
1985		30		30-
1986		3,709		3,709-
1987				
1988		5,748	2,025	3,723-
1989			2,852	2,852
1990			8,897	8,897
1991	24,086	0	32,445 135	32,445 135
1992				
1993	190,378	1,060 1	0	1,060- 1-
1994				
1995		8,730	1,499,700	1,490,970
1996		1,551		1,551-
1997	523,379	3,146 1	17,465 3	14,319 3
1998	523,475	0	0	0
1999	707,749	0	0	0
2000		744		744-
2001	2,939	32,056	89,381	57,325
TOTAL	2,075,772	56,774 3	1,652,765 80	1,595,991 77

THREE-YEAR MOVING AVERAGES

80-82	34,549	0	0	0
81-83				
82-84	40	0	0	0
83-85	40	10 25	0	10- 25-
84-86	40	1,246	0	1,246-
85-87		1,246		1,246-
86-88		3,152	675	2,477-
87-89		1,916	1,626	290-
88-90		1,916	4,591	2,675
89-91	8,029	0	14,731 183	14,731 183
90-92	8,029	0	13,781 172	13,781 172
91-93	71,488	353 0	10,815 15	10,462 15
92-94	63,459	353 1	0	353- 1-
93-95	63,459	3,263 5	499,900 788	496,637 783
94-96		3,427	499,900	496,473
95-97	174,460	4,476 3	505,722 290	501,246 287

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNTS 357 & 358 UNDERGROUND CONDUIT AND CONDUCTORS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
THREE-YEAR MOVING AVERAGES				
96-98	348,951	1,566 0	5,822 2	4,256 1
97-99	584,868	1,049 0	5,822 1	4,773 1
98-00	410,408	248 0		248- 0
99-01	236,896	10,933 5	29,794 13	18,861 8

FIVE-YEAR AVERAGE

97-01	351,508	7,189 2	21,369 6	14,180 4
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ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 361 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1980	2,645	0	0	0
1981	1,652	0	0	0
1982	28,083	0	0	0
1983	70,922	0	0	0
1984	12,987	0	0	0
1985	11,587	0	0	0
1986	23,920	0	0	0
1987	16,814	0	0	0
1988	55,932	9,566 17	20,586 37	11,020 20
1989	85,700	14,090 16	20,270- 24-	34,360- 40-
1990	82,322	11,190 14	10,110 12	1,080- 1-
1991	28,917	8,544 30	848 3	7,696- 27-
1992	33,563	14,048 42	6,058 18	7,990- 24-
1993	2,304	0	0	0
1994	12,259	0	0	0
1995	11,480	0	0	0
1996				
1997				
1998				
1999	39,557	0	0	0
2000	3,420	0	0	0
2001	46,469	0	0	0
TOTAL	570,533	57,438 10	17,332 3	40,106- 7-

THREE-YEAR MOVING AVERAGES

80-82	10,793	0	0	0
81-83	33,552	0	0	0
82-84	37,331	0	0	0
83-85	31,832	0	0	0
84-86	16,165	0	0	0
85-87	17,440	0	0	0
86-88	32,222	3,189 10	6,862 21	3,673 11
87-89	52,815	7,885 15	105 0	7,780- 15-
88-90	74,651	11,615 16	3,475 5	8,140- 11-
89-91	65,646	11,275 17	3,104- 5-	14,379- 22-
90-92	48,267	11,261 23	5,672 12	5,589- 12-
91-93	21,595	7,531 35	2,302 11	5,229- 24-
92-94	16,042	4,683 29	2,019 13	2,664- 17-
93-95	8,681	0	0	0
94-96	7,913	0	0	0
95-97	3,827	0	0	0

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 361 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
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THREE-YEAR MOVING AVERAGES

96-98				
97-99	13,186	0	0	0
98-00	14,326	0	0	0
99-01	29,815	0	0	0

FIVE-YEAR AVERAGE

97-01	17,889	0	0	0
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ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 362 STATION EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1980	353,034	44,600 13	23,940 7	20,660- 6-
1981	325,601	114,846 35	14,271 4	100,575- 31-
1982	667,561	158,044 24	101,079 15	56,965- 9-
1983	1,207,460	119,423 10	145,734 12	26,311 2
1984	787,759	144,531 18	131,469 17	13,062- 2-
1985	1,050,951	106,927 10	146,551 14	39,624 4
1986	619,146	60,520 10	16,662 3	43,858- 7-
1987	864,761	160,911 19	36,980 4	123,931- 14-
1988	3,816,364	246,124 6	2,309,201 61	2,063,077 54
1989	1,649,315	206,957 13	269,663 16	62,706 4
1990	1,092,237	131,454 12	445,162 41	313,708 29
1991	1,175,687	157,459 13	553,850 47	396,391 34
1992	834,931	215,787 26	239,226 29	23,439 3
1993	1,679,689	141,103 8	24,493 1	116,610- 7-
1994	644,300	54,683 8	197,815 31	143,132 22
1995	63,199	53,256 84	52,682 83	574- 1-
1996		120,490	685,379	564,889
1997		65,297	740,781	675,484
1998	918,692	7,693 1	2,467,092 269	2,459,399 268
1999	5,015,699	254,692 5	318,558 6	63,866 1
2000	723,460	257,728 36	1,439,168 199	1,181,440 163
2001	1,100,833	788,295 72	2,450,986 223	1,662,691 151
TOTAL	24,590,679	3,610,820 15	12,810,742 52	9,199,922 37

THREE-YEAR MOVING AVERAGES

80-82	448,732	105,830 24	46,430 10	59,400- 13-
81-83	733,541	130,771 18	87,028 12	43,743- 6-
82-84	887,593	140,666 16	126,094 14	14,572- 2-
83-85	1,015,390	123,627 12	141,251 14	17,624 2
84-86	819,285	103,993 13	98,227 12	5,766- 1-
85-87	844,953	109,453 13	66,731 8	42,722- 5-
86-88	1,766,757	155,852 9	787,614 45	631,762 36
87-89	2,110,147	204,664 10	871,948 41	667,284 32
88-90	2,185,972	194,845 9	1,008,009 46	813,164 37
89-91	1,305,746	165,290 13	422,892 32	257,602 20
90-92	1,034,285	168,233 16	412,746 40	244,513 24
91-93	1,230,102	171,450 14	272,523 22	101,073 8
92-94	1,052,973	137,191 13	153,845 15	16,654 2
93-95	795,729	83,014 10	91,664 12	8,650 1
94-96	235,833	76,143 32	311,959 132	235,816 100
95-97	21,066	79,681 378	492,947	413,266

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 362 STATION EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
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THREE-YEAR MOVING AVERAGES

96-98	306,231	64,493 21	1,297,750 424	1,233,257 403
97-99	1,978,130	109,227 6	1,175,477 59	1,066,250 54
98-00	2,219,283	173,371 8	1,408,272 63	1,234,901 56
99-01	2,279,997	433,572 19	1,402,904 62	969,332 43

FIVE-YEAR AVERAGE

97-01	1,551,737	274,741 18	1,483,317 96	1,208,576 78
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ARIZONA PUBLIC SERVICE COMPANY

ACCOUNTS 364 & 365 POLES, TOWERS AND OVERHEAD CONDUCTORS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
1980	1,735,193	676,096	39	1,473,332	85	797,236	46
1981	1,566,111	907,483	58	2,010,926	128	1,103,443	70
1982	1,974,404	1,028,437	52	1,583,540	80	555,103	28
1983	1,813,310	995,052	55	1,354,932	75	359,880	20
1984	2,202,512	1,029,406	47	1,925,720	87	896,314	41
1985	2,281,037	1,137,457	50	247,955	11	889,502-	39-
1986	2,695,275	1,908,860	71	1,690,172	63	218,688-	8-
1987	4,966,558	1,629,089	33	3,131,709	63	1,502,620	30
1988	5,426,903	1,766,362	33	3,361,392	62	1,595,030	29
1989	3,268,983	1,089,810	33	2,716,388	83	1,626,578	50
1990	3,691,097	1,008,315	27	3,161,527	86	2,153,212	58
1991	3,308,975	945,341	29	1,153,774	35	208,433	6
1992	4,268,305	1,973,019	46	2,018,618	47	45,599	1
1993	4,143,841	2,117,296	51	1,080,642	26	1,036,654-	25-
1994	3,156,765	2,288,803	73	2,060,563	65	228,240-	7-
1995	3,993,302	1,270,205	32	1,860,460	47	590,255	15
1996	2,035,693	1,131,342	56	1,288,338	63	156,996	8
1997	4,849,288	850,562	18	1,043,073	22	192,511	4
1998	12,281,069	203,001	2	2,026,534	17	1,823,533	15
1999	5,163,278	110,386	2	1,937,037	38	1,826,651	35
2000	8,293,942	922,537	11	3,564,474	43	2,641,937	32
2001	7,178,677	2,831,814	39	1,133,200	16	1,698,614-	24-
TOTAL	90,294,518	27,820,673	31	41,824,306	46	14,003,633	16

THREE-YEAR MOVING AVERAGES

80-82	1,758,569	870,672	50	1,689,266	96	818,594	47
81-83	1,784,608	976,991	55	1,649,799	92	672,808	38
82-84	1,996,742	1,017,632	51	1,621,397	81	603,765	30
83-85	2,098,953	1,053,972	50	1,176,202	56	122,230	6
84-86	2,392,941	1,358,574	57	1,287,949	54	70,625-	3-
85-87	3,314,290	1,558,469	47	1,689,945	51	131,476	4
86-88	4,362,912	1,768,104	41	2,727,758	63	959,654	22
87-89	4,554,148	1,495,087	33	3,069,830	67	1,574,743	35
88-90	4,128,994	1,288,162	31	3,079,769	75	1,791,607	43
89-91	3,423,018	1,014,489	30	2,343,896	68	1,329,407	39
90-92	3,756,126	1,308,892	35	2,111,306	56	802,414	21
91-93	3,907,040	1,678,552	43	1,417,678	36	260,874-	7-
92-94	3,856,304	2,126,373	55	1,719,941	45	406,432-	11-
93-95	3,764,636	1,892,102	50	1,667,221	44	224,881-	6-
94-96	3,061,920	1,563,450	51	1,736,454	57	173,004	6
95-97	3,626,094	1,084,036	30	1,397,290	39	313,254	9

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNTS 364 & 365 POLES, TOWERS AND OVERHEAD CONDUCTORS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
96-98	6,388,683	728,302	11	1,452,648	23	724,346	11
97-99	7,431,212	387,983	5	1,668,881	22	1,280,898	17
98-00	8,579,430	411,975	5	2,509,348	29	2,097,373	24
99-01	6,878,632	1,288,246	19	2,211,570	32	923,324	13
FIVE-YEAR AVERAGE							
97-01	7,553,251	983,660	13	1,940,863	26	957,203	13

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNTS 366 & 367 UNDERGROUND CONDUIT AND CONDUCTORS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1980	295,255	131,107 44	52,799 18	78,308- 27-
1981	355,642	206,243 58	154,349 43	51,894- 15-
1982	333,199	226,710 68	268,215 80	41,505 12
1983	245,403	212,106 86	63,495 26	148,611- 61-
1984	706,678	295,565 42	148,923 21	146,642- 21-
1985	669,681	365,426 55	58,873 9	306,553- 46-
1986	868,521	474,919 55	189,629 22	285,290- 33-
1987	1,803,973	432,143 24	127,669 7	304,474- 17-
1988	1,474,291	284,197 19	340,565 23	56,368 4
1989	1,916,091	168,564 9	259,046 14	90,482 5
1990	2,214,122	153,749 7	845,313 38	691,564 31
1991	6,672,075	480,402 7	481,990 7	1,588 0
1992	7,772,523	1,182,414 15	181,544 2	1,000,870- 13-
1993	13,884,753	1,303,100 9	770,847 6	532,253- 4-
1994	6,528,552	589,850 9	716,672 11	126,822 2
1995	6,064,685	883,089 15	227,138 4	655,951- 11-
1996	2,735,160	563,139 21	298,746 11	264,393- 10-
1997	9,608,328	456,194 5	196,108 2	260,086- 3-
1998	23,237,000	63,109- 0	321,114 1	384,223 2
1999	10,485,692	207,347 2	272,681 3	65,334 1
2000	11,925,094	715,610 6	1,327,926 11	612,316 5
2001	13,292,524	1,845,162 14	561,009 4	1,284,153- 10-
TOTAL	123,089,242	11,113,927 9	7,864,651 6	3,249,276- 3-

THREE-YEAR MOVING AVERAGES

80-82	328,032	188,020 57	158,454 48	29,566- 9-
81-83	311,415	215,020 69	162,020 52	53,000- 17-
82-84	428,427	244,794 57	160,211 37	84,583- 20-
83-85	540,587	291,032 54	90,430 17	200,602- 37-
84-86	748,293	378,637 51	132,475 18	246,162- 33-
85-87	1,114,058	424,163 38	125,390 11	298,773- 27-
86-88	1,382,262	397,086 29	219,288 16	177,798- 13-
87-89	1,731,452	294,968 17	242,427 14	52,541- 3-
88-90	1,868,168	202,170 11	481,641 26	279,471 15
89-91	3,600,763	267,572 7	528,783 15	261,211 7
90-92	5,552,907	605,522 11	502,949 9	102,573- 2-
91-93	9,443,117	988,639 10	478,127 5	510,512- 5-
92-94	9,395,276	1,025,121 11	556,354 6	468,767- 5-
93-95	8,825,997	925,346 10	571,552 6	353,794- 4-
94-96	5,109,466	678,692 13	414,185 8	264,507- 5-
95-97	6,136,058	634,141 10	240,664 4	393,477- 6-

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNTS 366 & 367 UNDERGROUND CONDUIT AND CONDUCTORS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
THREE-YEAR MOVING AVERAGES				
96-98	11,860,163	318,741 3	271,990 2	46,751- 0
97-99	14,443,673	200,144 1	263,301 2	63,157 0
98-00	15,215,929	286,616 2	640,574 4	353,958 2
99-01	11,901,103	922,706 8	720,539 6	202,167- 2-

FIVE-YEAR AVERAGE

97-01	13,709,728	632,241 5	535,768 4	96,473- 1-
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ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 368 LINE TRANSFORMERS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1980	1,157,498	172,546 15	337,519 29	164,973 14
1981	2,552,557	557,033 22	372,452 15	184,581- 7-
1982	1,816,640	465,702 26	509,989 28	44,287 2
1983	884,736	265,250 30	180,269 20	84,981- 10-
1984	490,573	540,512 110	416,859 85	123,653- 25-
1985	3,021,486	684,612 23	539,379 18	145,233- 5-
1986	1,948,121	166,974 9	462,986 24	296,012 15
1987	3,659,664	20,889 1	166,627 5	145,738 4
1988	1,755,669	261,757 15	584,006 33	322,249 18
1989	1,902,762	224,108 12	581,253 31	357,145 19
1990	1,640,395	136,698 8	590,977 36	454,279 28
1991	1,042,782	307,026 29	450,835 43	143,809 14
1992	1,073,804	474,600 44	144,640 13	329,960- 31-
1993	1,204,068	551 0	114,674 10	114,123 9
1994	914,534	1 0	213,136 23	213,135 23
1995	1,065,132	0	175,694 16	175,694 16
1996	328,125	494 0	122,579 37	122,085 37
1997	3,326,918	1,019 0	245,785 7	244,766 7
1998	2,113	106- 5-	231,134	231,240
1999	814,947	76 0	55,942 7	55,866 7
2000	4,287,170	2,387 0	223,765 5	221,378 5
2001	3,562,241	6,814 0	83,033 2	76,219 2
TOTAL	38,451,935	4,288,943 11	6,803,533 18	2,514,590 7

THREE-YEAR MOVING AVERAGES

80-82	1,842,232	398,427 22	406,653 22	8,226 0
81-83	1,751,311	429,328 25	354,237 20	75,091- 4-
82-84	1,063,983	423,821 40	369,039 35	54,782- 5-
83-85	1,465,598	496,791 34	378,836 26	117,955- 8-
84-86	1,820,060	464,033 25	473,075 26	9,042 0
85-87	2,876,424	290,825 10	389,664 14	98,839 3
86-88	2,454,485	149,873 6	404,540 16	254,667 10
87-89	2,439,365	168,918 7	443,962 18	275,044 11
88-90	1,766,275	207,521 12	585,412 33	377,891 21
89-91	1,528,646	222,611 15	541,022 35	318,411 21
90-92	1,252,327	306,108 24	395,484 32	89,376 7
91-93	1,106,885	260,726 24	236,716 21	24,010- 2-
92-94	1,064,135	158,384 15	157,483 15	901- 0
93-95	1,061,245	184 0	167,835 16	167,651 16
94-96	769,264	165 0	170,470 22	170,305 22
95-97	1,573,392	504 0	181,353 12	180,849 11

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 368 LINE TRANSFORMERS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
THREE-YEAR MOVING AVERAGES				
96-98	1,219,052	469 0	199,833 16	199,364 16
97-99	1,381,326	330 0	177,620 13	177,290 13
98-00	1,701,410	786 0	170,281 10	169,495 10
99-01	2,888,119	3,093 0	120,914 4	117,821 4
FIVE-YEAR AVERAGE				
97-01	2,398,678	2,038 0	167,932 7	165,894 7

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 369 SERVICES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1980	148,715	32,990 22	4,295 3	28,695- 19-
1981	117,607	20,588 18	18,624 16	1,964- 2-
1982	136,928	37,308 27	10,214 7	27,094- 20-
1983	142,702	61,455 43	16,550 12	44,905- 31-
1984	91,352	67,218 74	20,201 22	47,017- 51-
1985	111,733	37,064 33	52,085 47	15,021 13
1986	163,844	16,906 10	5,888 4	11,018- 7-
1987	198,966	34,726 17	24,468 12	10,258- 5-
1988	17,673	116,858 661	149,154 844	32,296 183
1989	243,097	105,738 43	100,763 41	4,975- 2-
1990	157,106	31,184 20	44,752 28	13,568 9
1991	175,803	88,570 50	52,034 30	36,536- 21-
1992	252,863	170,337 67	33,851 13	136,486- 54-
1993	421,834	31,417 7	7,391 2	24,026- 6-
1994	154,803	19,893 13	26,364 17	6,471 4
1995	127,432	29,181 23	5,410 4	23,771- 19-
1996	51,664	17,556 34	10,984 21	6,572- 13-
1997	321,064	339 0	1,348 0	1,009 0
1998	157,202	1,249 1	4,016 3	2,767 2
1999	548,633	1,339 0	8,573 2	7,234 1
2000	868,132	9,557 1	46,603 5	37,046 4
2001	998,557	73,686 7	35,575 4	38,111- 4-
TOTAL	5,607,710	1,005,159 18	679,143 12	326,016- 6-

THREE-YEAR MOVING AVERAGES

80-82	134,417	30,295 23	11,044 8	19,251- 14-
81-83	132,412	39,784 30	15,129 11	24,655- 19-
82-84	123,661	55,327 45	15,655 13	39,672- 32-
83-85	115,262	55,246 48	29,612 26	25,634- 22-
84-86	122,310	40,396 33	26,058 21	14,338- 12-
85-87	158,181	29,565 19	27,480 17	2,085- 1-
86-88	126,828	56,163 44	59,837 47	3,674 3
87-89	153,245	85,774 56	91,462 60	5,688 4
88-90	139,292	84,593 61	98,223 71	13,630 10
89-91	192,002	75,164 39	65,850 34	9,314- 5-
90-92	195,257	96,697 50	43,546 22	53,151- 27-
91-93	283,500	96,775 34	31,092 11	65,683- 23-
92-94	276,500	73,882 27	22,535 8	51,347- 19-
93-95	234,690	26,830 11	13,055 6	13,775- 6-
94-96	111,300	22,210 20	14,253 13	7,957- 7-
95-97	166,720	15,692 9	5,914 4	9,778- 6-

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 369 SERVICES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
THREE-YEAR MOVING AVERAGES				
96-98	176,643	6,381 4	5,449 3	932- 1-
97-99	342,300	976 0	4,646 1	3,670 1
98-00	524,656	4,048 1	19,731 4	15,683 3
99-01	805,107	28,194 4	30,250 4	2,056 0
FIVE-YEAR AVERAGE				
97-01	578,718	17,234 3	19,223 3	1,989 0

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 370 METERS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1980	236,982	57 0	16,722 7	16,665 7
1981	194,904	0	3,831 2	3,831 2
1982	110,403	82- 0	9,282 8	9,364 8
1983	525,769	7,203 1	4,726 1	2,477- 0
1984	286,472	206 0	6,136 2	5,930 2
1985	339,067	0	298 0	298 0
1986	789,827	0	50,892 6	50,892 6
1987	466,199	0	15,332 3	15,332 3
1988	422,027	13,674 3	45,030 11	31,356 7
1989	482,811	24,085 5	35,139 7	11,054 2
1990	619,622	32,142 5	38,831 6	6,689 1
1991	862,041	6,609 1	31,161 4	24,552 3
1992	3,797,834	32,001 1	97,971 3	65,970 2
1993	2,456,699	0	135,619 6	135,619 6
1994	4,272,797	0	11,530 0	11,530 0
1995	6,157,490	0	9,271 0	9,271 0
1996	4,531,550	0	28,049 1	28,049 1
1997	2,806,407	0	3,327 0	3,327 0
1998	2,511,441	0	1,554 0	1,554 0
1999	1,907,409	0	132 0	132 0
2000	2,950,791	0	1,357 0	1,357 0
2001	1,879,901	0	8,755 0	8,755 0
TOTAL	38,608,443	115,895 0	554,945 1	439,050 1

THREE-YEAR MOVING AVERAGES

80-82	180,763	8- 0	9,945 6	9,953 6
81-83	277,025	2,374 1	5,946 2	3,572 1
82-84	307,548	2,442 1	6,715 2	4,273 1
83-85	383,769	2,470 1	3,720 1	1,250 0
84-86	471,789	69 0	19,109 4	19,040 4
85-87	531,698	0	22,174 4	22,174 4
86-88	559,351	4,558 1	37,085 7	32,527 6
87-89	457,012	12,586 3	31,834 7	19,248 4
88-90	508,153	23,300 5	39,667 8	16,367 3
89-91	654,825	20,945 3	35,044 5	14,099 2
90-92	1,759,832	23,584 1	55,988 3	32,404 2
91-93	2,372,191	12,870 1	88,250 4	75,380 3
92-94	3,509,110	10,667 0	81,707 2	71,040 2
93-95	4,295,662	0	52,140 1	52,140 1
94-96	4,987,279	0	16,283 0	16,283 0
95-97	4,498,482	0	13,549 0	13,549 0

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 370 METERS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
THREE-YEAR MOVING AVERAGES				
96-98	3,283,133	0	10,977 0	10,977 0
97-99	2,408,419	0	1,671 0	1,671 0
98-00	2,456,547	0	1,014 0	1,014 0
99-01	2,246,034	0	3,415 0	3,415 0
FIVE-YEAR AVERAGE				
97-01	2,411,190	0	3,025 0	3,025 0

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 371 INSTALLATIONS ON CUSTOMERS PREMISES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1980	98,714	25,328 26	11,588 12	13,740- 14-
1981	101,515	43,787 43	8,985 9	34,802- 34-
1982	147,644	50,689 34	12,012 8	38,677- 26-
1983	120,234	47,521 40	5,432 5	42,089- 35-
1984	134,638	64,325 48	523 0	63,802- 47-
1985	145,496	52,050 36	5,958 4	46,092- 32-
1986	124,288	54,632 44	1,334 1	53,298- 43-
1987	67,765	43,139 64	1,803 3	41,336- 61-
1988	94,843	45,160 48	17,961 19	27,199- 29-
1989	119,910	63,505 53	47,504 40	16,001- 13-
1990	130,177	29,939 23	32,675 25	2,736 2
1991	175,284	78,385 45	16,837 10	61,548- 35-
1992	204,423	44,153 22	8,923 4	35,230- 17-
1993	223,607	25,728 12	886 0	24,842- 11-
1994	114,441	21,196 19	1,811 2	19,385- 17-
1995	110,412	13,879- 13-	3,627 3	17,506 16
1996	104,371	18,693 18	0 0	18,693- 18-
1997	156,100	1,080 1	0 0	1,080- 1-
1998	91,651	4,173 5	3,568 4	605- 1-
1999	269,435	5,219 2	2,801 1	2,418- 1-
2000	281,111	36,149 13	59,088 21	22,939 8
2001	263,056	11,858 5	19,623- 7-	31,481- 12-
TOTAL	3,279,115	752,830 23	223,693 7	529,137- 16-

THREE-YEAR MOVING AVERAGES

80-82	115,958	39,935 34	10,862 9	29,073- 25-
81-83	123,131	47,332 38	8,810 7	38,522- 31-
82-84	134,172	54,178 40	5,989 4	48,189- 36-
83-85	133,456	54,632 41	3,971 3	50,661- 38-
84-86	134,807	57,002 42	2,605 2	54,397- 40-
85-87	112,516	49,940 44	3,032 3	46,908- 42-
86-88	95,632	47,644 50	7,033 7	40,611- 42-
87-89	94,173	50,601 54	22,423 24	28,178- 30-
88-90	114,977	46,201 40	32,713 28	13,488- 12-
89-91	141,790	57,276 40	32,339 23	24,937- 18-
90-92	169,961	50,826 30	19,478 11	31,348- 18-
91-93	201,105	49,422 25	8,882 4	40,540- 20-
92-94	180,824	30,359 17	3,873 2	26,486- 15-
93-95	149,487	11,015 7	2,108 1	8,907- 6-
94-96	109,741	8,670 8	1,813 2	6,857- 6-
95-97	123,628	1,965 2	1,209 1	756- 1-

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 371 INSTALLATIONS ON CUSTOMERS PREMISES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
THREE-YEAR MOVING AVERAGES				
96-98	117,374	7,982 7	1,189 1	6,793- 6-
97-99	172,395	3,491 2	2,123 1	1,368- 1-
98-00	214,065	15,180 7	21,819 10	6,639 3
99-01	271,201	17,742 7	14,089 5	3,653- 1-

FIVE-YEAR AVERAGE

97-01	212,271	11,696 6	9,167 4	2,529- 1-
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ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 373 STREET LIGHTING AND SIGNAL SYSTEMS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1980	230,490	39,493 17	101,134 44	61,641 27
1981	305,377	59,022 19	188,002 62	128,980 42
1982	147,607	80,272 54	123,265 84	42,993 29
1983	158,377	41,728 26	93,025 59	51,297 32
1984	255,028	50,999 20	43,857 17	7,142- 3-
1985	177,821	33,991 19	52,453 29	18,462 10
1986	403,630	109,189 27	66,610 17	42,579- 11-
1987	473,970	83,499 18	33,392 7	50,107- 11-
1988	545,186	225,711 41	262,489 48	36,778 7
1989	527,460	198,202 38	229,631 44	31,429 6
1990	311,244	56,624 18	172,416 55	115,792 37
1991	428,284	414,347 97	375,256 88	39,091- 9-
1992	344,692	113,179 33	52,057 15	61,122- 18-
1993	399,733	46,666 12	17,258 4	29,408- 7-
1994	207,368	60,457 29	20,803 10	39,654- 19-
1995	197,106	108,678 55	52,328 27	56,350- 29-
1996	70,371	33,158 47	37,991 54	4,833 7
1997		18,224	5,905	12,319-
1998	384,965	4,927- 1-	51,796 13	56,723 15
1999	60,395	59,051 98	35,055 58	23,996- 40-
2000	494,881	20,142 4	53,147 11	33,005 7
2001	334,618	45,479 14	115,609 35	70,130 21
TOTAL	6,458,603	1,893,184 29	2,183,479 34	290,295 4

THREE-YEAR MOVING AVERAGES

80-82	227,825	59,596 26	137,467 60	77,871 34
81-83	203,787	60,341 30	134,764 66	74,423 37
82-84	187,004	57,666 31	86,716 46	29,050 16
83-85	197,075	42,239 21	63,112 32	20,873 11
84-86	278,826	64,726 23	54,307 19	10,419- 4-
85-87	351,807	75,560 21	50,818 14	24,742- 7-
86-88	474,262	139,466 29	120,830 25	18,636- 4-
87-89	515,539	169,137 33	175,171 34	6,034 1
88-90	461,297	160,179 35	221,512 48	61,333 13
89-91	422,329	223,058 53	259,101 61	36,043 9
90-92	361,407	194,717 54	199,910 55	5,193 1
91-93	390,903	191,397 49	148,190 38	43,207- 11-
92-94	317,264	73,434 23	30,039 9	43,395- 14-
93-95	268,069	71,934 27	30,130 11	41,804- 16-
94-96	158,282	67,431 43	37,041 23	30,390- 19-
95-97	89,159	53,353 60	32,074 36	21,279- 24-

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 373 STREET LIGHTING AND SIGNAL SYSTEMS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
THREE-YEAR MOVING AVERAGES				
96-98	151,779	15,485 10	31,897 21	16,412 11
97-99	148,454	24,116 16	30,919 21	6,803 5
98-00	313,414	24,755 8	46,666 15	21,911 7
99-01	296,631	41,557 14	67,937 23	26,380 9
FIVE-YEAR AVERAGE				
97-01	254,972	27,594 11	52,302 21	24,708 10

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 390 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1980	4,500	0	0	0
1981				
1982	492	0	0	0
1983	28,600	0	0	0
1984				
1985	75,176	6,912 9	2,377 3	4,535- 6-
1986	193,331	38,466 20	961 0	37,505- 19-
1987	554,698	6,072 1	57 0	6,015- 1-
1988	1,758,903	44,115 3	16,211 1	27,904- 2-
1989	4,600,937	4,006 0	66,961 1	62,955 1
1990	1,567,998	447,799 29	5,711 0	442,088- 28-
1991	124,431	252,312 203	827 1	251,485-202-
1992	246,656	334,006 135	0	334,006-135-
1993	471,262	675,248 143	33,700 7	641,548-136-
1994	468,723	564,881 121	0	564,881-121-
1995	1,787,639	476,459 27	0	476,459- 27-
1996	911,551	150,718 17	0	150,718- 17-
1997		3,100		3,100-
1998	28,592	99,331 347	10,948 38	88,383-309-
1999	262,727	133,725 51	52,870 20	80,855- 31-
2000	32,461	5,097 16	1,649 5	3,448- 11-
2001	770,978	13,837- 2-	48,610 6	62,447 8
TOTAL	13,889,655	3,228,410 23	240,882 2	2,987,528- 22-

THREE-YEAR MOVING AVERAGES

80-82	1,664	0	0	0
81-83	9,697	0	0	0
82-84	9,697	0	0	0
83-85	34,592	2,304 7	792 2	1,512- 4-
84-86	89,502	15,126 17	1,113 1	14,013- 16-
85-87	274,402	17,150 6	1,132 0	16,018- 6-
86-88	835,644	29,551 4	5,743 1	23,808- 3-
87-89	2,304,846	18,064 1	27,743 1	9,679 0
88-90	2,642,613	165,307 6	29,628 1	135,679- 5-
89-91	2,097,789	234,706 11	24,500 1	210,206- 10-
90-92	646,362	344,706 53	2,179 0	342,527- 53-
91-93	280,783	420,522 150	11,509 4	409,013-146-
92-94	395,547	524,712 133	11,233 3	513,479-130-
93-95	909,208	572,196 63	11,233 1	560,963- 62-
94-96	1,055,971	397,353 38	0	397,353- 38-
95-97	899,730	210,092 23	0	210,092- 23-

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 390 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
THREE-YEAR MOVING AVERAGES				
96-98	313,381	84,383 27	3,649 1	80,734- 26-
97-99	97,107	78,719 81	21,273 22	57,446- 59-
98-00	107,927	79,384 74	21,822 20	57,562- 53-
99-01	355,389	41,662 12	34,376 10	7,286- 2-
FIVE-YEAR AVERAGE				
97-01	218,952	45,483 21	22,816 10	22,667- 10-

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 391 OFFICE FURNITURE AND EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1981	75	0	0	0
1982				
1983	750	0	0	0
1984	17,941	0	0	0
1985	53,553	9,456 18	20,021 37	10,565 20
1986	25,494	955 4	14,221 56	13,266 52
1987	58,327	30,043 52	11,417 20	18,626- 32-
1988	114,580	1,318 1	89,444 78	88,126 77
1989	1,394,247	19,526 1	202,422 15	182,896 13
1990	107,117	2,812 3	8,087 8	5,275 5
1991	10,001	0	16,389 164	16,389 164
1992	77,697	795- 1-	738 1	1,533 2
1993		684	15,924	15,240
1994	92,142	0	82,149 89	82,149 89
1995	84,048	0	10,000 12	10,000 12
1996	1,392,845	0	0	0
1997	17,830,894	0	142- 0	142- 0
1998	4,824,424	0	0	0
1999	14,705,340	0	0	0
2000	4,186,877	0	14 0	14 0
2001	117,584	106,175- 90-	0	106,175 90
TOTAL	45,093,936	42,176- 0	470,684 1	512,860 1

THREE-YEAR MOVING AVERAGES

81-83	275	0	0	0
82-84	6,230	0	0	0
83-85	24,081	3,152 13	6,674 28	3,522 15
84-86	32,329	3,470 11	11,414 35	7,944 25
85-87	45,791	13,485 29	15,220 33	1,735 4
86-88	66,134	10,772 16	38,361 58	27,589 42
87-89	522,385	16,962 3	101,094 19	84,132 16
88-90	538,648	7,885 1	99,984 19	92,099 17
89-91	503,788	7,446 1	75,633 15	68,187 14
90-92	64,938	672 1	8,405 13	7,733 12
91-93	29,233	37- 0	11,017 38	11,054 38
92-94	56,613	37- 0	32,937 58	32,974 58
93-95	58,730	228 0	36,024 61	35,796 61
94-96	523,012	0	30,716 6	30,716 6
95-97	6,435,929	0	3,286 0	3,286 0
96-98	8,016,054	0	47- 0	47- 0
97-99	12,453,553	0	47- 0	47- 0

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 391 OFFICE FURNITURE AND EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
THREE-YEAR MOVING AVERAGES				
98-00	7,905,547	0	5 0	5 0
99-01	6,336,600	35,392- 1-	5 0	35,397 1
FIVE-YEAR AVERAGE				
97-01	8,333,024	21,235- 0	26- 0	21,209 0

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 391.1 OFFICE FURNITURE AND EQUIPMENT - PC EQUIP

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1984	53,926	0	0	0
1985	1,301,518	0	0	0
1986	2,368,532	0	0	0
1987	1,668,901	0	0	0
1988	952,707	0	0	0
1989	252,771	0	0	0
1990	52,588	0	0	0
1991	574,052	0	0	0
1992	18,873,181	0	0	0
1993	4,121,773	0	0	0
1994	11,315,065	0	0	0
1995	24,120,771	0	0	0
1996	7,884,362	0	0	0
1997				
1998				
1999				
2000				
2001				
TOTAL	73,540,147	0	0	0

THREE-YEAR MOVING AVERAGES

84-86	1,241,325	0	0	0
85-87	1,779,650	0	0	0
86-88	1,663,380	0	0	0
87-89	958,126	0	0	0
88-90	419,355	0	0	0
89-91	293,137	0	0	0
90-92	6,499,940	0	0	0
91-93	7,856,335	0	0	0
92-94	11,436,673	0	0	0
93-95	13,185,870	0	0	0
94-96	14,440,066	0	0	0
95-97	10,668,378	0	0	0
96-98	2,628,121	0	0	0
97-99				
98-00				
99-01				

FIVE-YEAR AVERAGE

97-01

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 391.2 OFFICE FURNITURE AND EQUIPMENT - EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1984	6,930	0	0	0
1985	74,042	0	0	0
1986	26,628	0	0	0
1987	82,199	0	0	0
1988	219,491	0	0	0
1989	47,385	0	0	0
1990	57,854	0	0	0
1991	1	0	0	0
1992				
1993	3,060	0	0	0
1994	269,849	0	0	0
1995	119,892	0	0	0
1996				
1997				
1998				
1999				
2000				
2001				
TOTAL	907,331	0	0	0

THREE-YEAR MOVING AVERAGES

84-86	35,867	0	0	0
85-87	60,956	0	0	0
86-88	109,439	0	0	0
87-89	116,358	0	0	0
88-90	108,243	0	0	0
89-91	35,080	0	0	0
90-92	19,285	0	0	0
91-93	1,020	0	0	0
92-94	90,970	0	0	0
93-95	130,934	0	0	0
94-96	129,914	0	0	0
95-97	39,964	0	0	0
96-98				
97-99				
98-00				
99-01				

FIVE-YEAR AVERAGE

97-01

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 393 STORES EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1992	74,134	0	0	0
1993				
1994	600	0	0	0
1995				
1996				
1997				
1998				
1999				
2000				
2001	26,374	0	0	0
TOTAL	101,108	0	0	0

THREE-YEAR MOVING AVERAGES

92-94	24,911	0	0	0
93-95	200	0	0	0
94-96	200	0	0	0
95-97				
96-98				
97-99				
98-00				
99-01	8,791	0	0	0

FIVE-YEAR AVERAGE

97-01	5,275	0	0	0
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ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 394 TOOLS, SHOP AND GARAGE EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1980	3,408	0	0	0
1981	22,507	0	0	0
1982	2,580	0	0	0
1983	11,806	0	0	0
1984				
1985	7,975	0	581 7	581 7
1986	4,482	0	0	0
1987	14,148	0	512 4	512 4
1988	1,125	13 1	816 73	803 71
1989		2,037	5	2,032-
1990		2,302	20	2,282-
1991	1	0	1,371	1,371
1992				
1993	54,255	0	400 1	400 1
1994	2,581	0	0	0
1995	8,519	0	1,575 18	1,575 18
1996	10,414,896	0	9,271 0	9,271 0
1997	54,663	0	4,393 8	4,393 8
1998			1,981	1,981
1999	1,467	0	0	0
2000				
2001	19,273	0	0	0
TOTAL	10,623,686	4,352 0	20,925 0	16,573 0

THREE-YEAR MOVING AVERAGES

80-82	9,498	0	0	0
81-83	12,298	0	0	0
82-84	4,795	0	0	0
83-85	6,594	0	194 3	194 3
84-86	4,152	0	194 5	194 5
85-87	8,868	0	364 4	364 4
86-88	6,585	4 0	443 7	439 7
87-89	5,091	683 13	444 9	239- 5-
88-90	375	1,451 387	280 75	1,171-312-
89-91		1,446	465	981-
90-92		767	464	303-
91-93	18,085	0	590 3	590 3
92-94	18,945	0	133 1	133 1
93-95	21,785	0	658 3	658 3
94-96	3,475,332	0	3,615 0	3,615 0
95-97	3,492,693	0	5,080 0	5,080 0

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 394 TOOLS, SHOP AND GARAGE EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
THREE-YEAR MOVING AVERAGES				
96-98	3,489,853	0	5,215 0	5,215 0
97-99	18,710	0	2,124 11	2,124 11
98-00	489	0	660 135	660 135
99-01	6,913	0	0	0
FIVE-YEAR AVERAGE				
97-01	15,081	0	1,275 8	1,275 8

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 395 LABORATORY EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1983	500	0	0	0
1984				
1985				
1986				
1987	10,000	0	0	0
1988				
1989				
1990	372,413	0	0	0
1991				
1992				
1993				
1994	16,007	0	0	0
1995				
1996				
1997				
1998				
1999				
2000				
2001				
TOTAL	398,920	0	0	0

THREE-YEAR MOVING AVERAGES

83-85	167	0	0	0
84-86				
85-87	3,333	0	0	0
86-88	3,333	0	0	0
87-89	3,333	0	0	0
88-90	124,138	0	0	0
89-91	124,138	0	0	0
90-92	124,138	0	0	0
91-93				
92-94	5,336	0	0	0
93-95	5,336	0	0	0
94-96	5,336	0	0	0
95-97				
96-98				
97-99				
98-00				
99-01				

FIVE-YEAR AVERAGE

97-01

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 397 COMMUNICATION EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1980	188,179	0	0	0
1981	103,749	0	0	0
1982	119,188	0	0	0
1983	29,516	0	0	0
1984	181,773	0	0	0
1985	170,157	8,190 5	1,547 1	6,643- 4-
1986	256,834	20,878 8	34,839 14	13,961 5
1987	223,006	4,706 2	9,852 4	5,146 2
1988	2,366,371	9,548 0	54,704 2	45,156 2
1989	271,451	12,121 4	18,189 7	6,068 2
1990	1,191,779	29,179 2	3,514 0	25,665- 2-
1991	205,368	13,258 6	40 0	13,218- 6-
1992	423,495	27,061 6	0	27,061- 6-
1993	223,593	8,405 4	0	8,405- 4-
1994	558,424	5,377 1	0	5,377- 1-
1995	2,410,094	52,766 2	126,458 5	73,692 3
1996	4,320,865	60 0	0	60- 0
1997	5,831,203	18 0	0	18- 0
1998		97,091		97,091-
1999	8,543,077	5,263- 0	119,336 1	124,599 1
2000	5,488,147	0	561,385 10	561,385 10
2001	921,103	77,559- 8-	0	77,559 8
TOTAL	34,027,372	205,836 1	929,864 3	724,028 2

THREE-YEAR MOVING AVERAGES

80-82	137,039	0	0	0
81-83	84,151	0	0	0
82-84	110,159	0	0	0
83-85	127,149	2,730 2	516 0	2,214- 2-
84-86	202,921	9,689 5	12,129 6	2,440 1
85-87	216,666	11,258 5	15,413 7	4,155 2
86-88	948,737	11,711 1	33,132 3	21,421 2
87-89	953,609	8,792 1	27,582 3	18,790 2
88-90	1,276,534	16,949 1	25,469 2	8,520 1
89-91	556,199	18,186 3	7,248 1	10,938- 2-
90-92	606,881	23,166 4	1,185 0	21,981- 4-
91-93	284,152	16,241 6	13 0	16,228- 6-
92-94	401,837	13,614 3	0	13,614- 3-
93-95	1,064,037	22,183 2	42,153 4	19,970 2
94-96	2,429,794	19,401 1	42,153 2	22,752 1
95-97	4,187,387	17,615 0	42,153 1	24,538 1

ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 397 COMMUNICATION EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
THREE-YEAR MOVING AVERAGES				
96-98	3,384,023	32,390 1	0	32,390- 1-
97-99	4,791,427	30,616 1	39,779 1	9,163 0
98-00	4,677,075	30,610 1	226,907 5	196,297 4
99-01	4,984,109	27,607- 1-	226,907 5	254,514 5

FIVE-YEAR AVERAGE

97-01	4,156,706	2,858 0	136,144 3	133,286 3
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ARIZONA PUBLIC SERVICE COMPANY
ACCOUNT 398 MISCELLANEOUS EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1982	2,000	0	0	0
1983	11,000	0	0	0
1984	11,000-	0	0	0
1985				
1986	10,750	0	0	0
1987	4,600	0	0	0
1988				
1989	768	34,452	401 52	34,051-
1990	6,436	619 10	47- 1-	666- 10-
1991				
1992	653,536	2,845- 0	444 0	3,289 1
1993	4,080	704 17	0	704- 17-
1994	175,170	0	0	0
1995				
1996				
1997				
1998				
1999	14,899	0	0	0
2000				
2001	5,878	0	0	0
TOTAL	878,117	32,930 4	798 0	32,132- 4-

THREE-YEAR MOVING AVERAGES

82-84	667	0	0	0
83-85				
84-86	83-	0	0	0
85-87	5,117	0	0	0
86-88	5,117	0	0	0
87-89	1,789	11,484 642	134 7	11,350-634-
88-90	2,401	11,690 487	118 5	11,572-482-
89-91	2,401	11,690 487	118 5	11,572-482-
90-92	219,991	742- 0	132 0	874 0
91-93	219,205	714- 0	148 0	862 0
92-94	277,595	714- 0	148 0	862 0
93-95	59,750	235 0	0	235- 0
94-96	58,390	0	0	0
95-97				
96-98				
97-99	4,966	0	0	0
98-00	4,966	0	0	0
99-01	6,926	0	0	0

FIVE-YEAR AVERAGE

97-01	4,155	0	0	0
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APPENDIX C
DEPRECIATION CALCULATIONS

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CHOLLA UNIT 1						
INTERIM SURVIVOR CURVE.. IOWA 75-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2017						
NET SALVAGE PERCENT.. -20						
1962	987,438	874,712	1,030,082	154,844	13.49	11,478
1964	455	398	469	77	13.57	6
1966	6,033	5,197	6,120	1,120	13.65	82
1971	1,320	1,089	1,282	302	13.84	22
1972	1,878	1,533	1,805	449	13.87	32
1975	82,872	65,366	76,977	22,469	13.97	1,608
1976	547,491	426,320	502,045	154,944	14.00	11,067
1979	64,304	47,904	56,413	20,752	14.09	1,473
1981	7,314	5,263	6,198	2,579	14.14	182
1982	47,175	33,287	39,200	17,410	14.17	1,229
1983	28,716	19,845	23,370	11,089	14.19	781
1985	58,195	38,332	45,141	24,693	14.24	1,734
1986	6,028	3,865	4,552	2,682	14.26	188
1988	103,286	62,207	73,256	50,687	14.30	3,545
1990	22,340	12,452	14,664	12,144	14.34	847
1994	92,677	41,215	48,535	62,677	14.40	4,353
1995	34,644	14,218	16,744	24,829	14.41	1,723
1996	451	168	198	343	14.42	24
1998	45,778	13,025	15,338	39,596	14.45	2,740
1999	6,394	1,492	1,757	5,916	14.46	409
	2,144,789	1,667,888	1,964,146	609,602		43,523

CHOLLA UNIT 2
INTERIM SURVIVOR CURVE.. IOWA 75-S1.5
PROBABLE RETIREMENT YEAR.. 6-2033
NET SALVAGE PERCENT.. -20

1978	2,656,974	1,464,737	1,805,727	1,382,642	27.85	49,646
1981	23,841	12,179	15,014	13,595	28.25	481
1982	11,705	5,811	7,164	6,882	28.37	243
1985	80,109	36,001	44,382	51,749	28.73	1,801
1986	71,386	30,873	38,060	47,603	28.84	1,651

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CHOLLA UNIT 2						
INTERIM SURVIVOR CURVE.. IOWA 75-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2033						
NET SALVAGE PERCENT.. -20						
1987	47,868	19,852	24,474	32,968	28.95	1,139
1988	251,979	99,814	123,051	179,324	29.06	6,171
1994	2,172	579	714	1,892	29.61	64
1995	34,644	8,356	10,301	31,272	29.69	1,053
1996	451	97	120	421	29.76	14
1998	1,372,451	215,091	265,163	1,381,778	29.90	46,213
1999	6,394	803	990	6,683	29.96	223
2002	462,205	9,041	11,146	543,500	30.12	18,044
	5,022,179	1,903,234	2,346,306	3,680,309		126,743

CHOLLA UNIT 3

INTERIM SURVIVOR CURVE.. IOWA 75-S1.5
PROBABLE RETIREMENT YEAR.. 6-2035
NET SALVAGE PERCENT.. -20

1980	8,586,605	4,365,773	5,684,369	4,619,557	29.69	155,593
1981	23,841	11,790	15,351	13,258	29.84	444
1982	11,705	5,621	7,319	6,727	29.98	224
1985	126,987	55,026	71,645	80,739	30.40	2,656
1986	369,860	154,054	200,583	243,249	30.53	7,968
1987	47,864	19,109	24,880	32,557	30.65	1,062
1988	170,215	64,872	84,465	119,793	30.77	3,893
1994	2,169	552	719	1,884	31.41	60
1995	34,644	7,978	10,388	31,185	31.50	990
1996	466	95	124	435	31.59	14
1998	47,165	7,012	9,129	47,469	31.75	1,495
1999	6,588	783	1,020	6,886	31.82	216
2002	155,168	2,868	3,734	182,468	32.02	5,699
	9,583,277	4,695,533	6,113,726	5,386,207		180,314

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CHOLLA COMMON						
INTERIM SURVIVOR CURVE.. IOWA 75-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2035						
NET SALVAGE PERCENT.. -20						
1962	489,320	340,978	447,296	139,888	26.50	5,279
1978	15,761,056	8,433,426	11,062,999	7,850,268	29.38	267,198
1979	8,595	4,487	5,886	4,428	29.54	150
1980	2,755,752	1,401,135	1,838,014	1,468,888	29.69	49,474
1981	5,522,881	2,731,175	3,582,765	3,044,692	29.84	102,034
1982	5,244,827	2,518,776	3,304,140	2,989,652	29.98	99,722
1983	139,618	64,922	85,165	82,377	30.13	2,734
1984	2,325,172	1,045,490	1,371,478	1,418,728	30.26	46,885
1985	474,156	205,461	269,524	299,463	30.40	9,851
1986	106,949	44,546	58,436	69,903	30.53	2,290
1987	58,210	23,240	30,486	39,366	30.65	1,284
1988	305,051	116,261	152,512	213,549	30.77	6,940
1990	26,921	9,220	12,095	20,210	31.00	652
1991	187,718	60,438	79,283	145,979	31.11	4,692
1992	633,701	190,262	249,586	510,855	31.22	16,363
1993	585,068	162,602	213,302	488,780	31.32	15,606
1996	136,275	27,833	36,511	127,019	31.59	4,021
1997	264,457	46,872	61,487	255,861	31.67	8,079
2000	660,445	57,617	75,582	716,952	31.89	22,482
2002	548,378	10,134	13,294	644,760	32.02	20,136
	36,234,550	17,494,875	22,949,841	20,531,618		685,872

FOUR CORNERS UNITS 1-3
INTERIM SURVIVOR CURVE.. IOWA 75-S1.5
PROBABLE RETIREMENT YEAR.. 6-2016
NET SALVAGE PERCENT.. -20

1963	913,885	818,658	629,072	467,590	12.67	36,905
1964	364,219	324,213	249,131	187,932	12.70	14,798
1965	135,524	119,809	92,063	70,566	12.74	5,539
1966	22,048	19,356	14,874	11,584	12.77	907
1967	38,745	33,755	25,938	20,556	12.81	1,605

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FOUR CORNERS UNITS 1-3						
INTERIM SURVIVOR CURVE.. IOWA 75-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2016						
NET SALVAGE PERCENT.. -20						
1968	2,491	2,153	1,654	1,335	12.84	104
1969	12,777	10,957	8,420	6,912	12.87	537
1971	16,727	14,089	10,826	9,246	12.93	715
1972	10,399	8,673	6,664	5,815	12.97	448
1973	12,656	10,449	8,029	7,158	12.99	551
1974	121,527	99,254	76,269	69,563	13.02	5,343
1975	19,280	15,564	11,960	11,176	13.05	856
1976	78,277	62,409	47,956	45,976	13.08	3,515
1978	657,380	510,153	392,011	396,845	13.13	30,224
1979	735,101	561,999	431,851	450,270	13.15	34,241
1980	564,006	424,223	325,981	350,826	13.18	26,618
1981	330,716	244,545	187,913	208,946	13.20	15,829
1982	568,236	412,471	316,950	364,933	13.22	27,605
1983	574,536	408,771	314,107	375,336	13.24	28,349
1984	719,153	500,530	384,617	478,367	13.26	36,076
1985	2,093,283	1,422,511	1,093,084	1,418,856	13.28	106,842
1986	2,045,834	1,354,424	1,040,765	1,414,236	13.30	106,334
1987	69,908	44,973	34,558	49,332	13.32	3,704
1988	218,258	135,957	104,472	157,438	13.34	11,802
1989	70,176	42,232	32,452	51,759	13.35	3,877
1990	133,336	77,122	59,262	100,741	13.37	7,535
1991	476,691	263,934	202,812	369,217	13.38	27,595
1992	2,979	1,569	1,206	2,369	13.39	177
1993	1,325,525	658,362	505,897	1,084,733	13.41	80,890
1994	160,127	74,401	57,171	134,981	13.42	10,058
1995	432,230	185,686	142,685	375,991	13.43	27,996
1996	1,080,840	422,306	324,507	972,501	13.44	72,359
1998	107,041	32,125	24,685	103,764	13.46	7,709
1999	930,876	230,559	177,166	939,885	13.46	69,828
2000	103,059	19,354	14,872	108,799	13.47	8,077
2001	283,213	34,020	26,142	313,714	13.48	23,273
2002	541,868	23,279	17,988	632,354	13.48	46,911
	15,972,927	9,624,845	7,395,910	11,771,602		885,732

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
FOUR CORNERS COMMON						
INTERIM SURVIVOR CURVE.. IOWA 75-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2031						
NET SALVAGE PERCENT.. -20						
1963	449,118	323,149	447,012	91,930	24.18	3,802
1964	580,435	412,898	571,162	125,360	24.34	5,150
1977	784,577	456,624	631,648	309,844	26.14	11,853
1979	1,050,433	584,503	808,543	451,977	26.38	17,133
1994	684,379	191,681	265,153	556,102	27.78	20,018
1995	23	6	8	20	27.84	1
1996	48,639	10,996	15,211	43,156	27.91	1,546
1997	15,919	3,135	4,337	14,766	27.97	528
1998	41,837	6,948	9,611	40,593	28.02	1,449
1999	158,944	21,152	29,259	161,474	28.07	5,753
2001	91,469	5,554	7,683	102,080	28.17	3,624
2002	41,098	858	1,187	48,131	28.21	1,706
	3,946,871	2,017,504	2,790,814	1,945,433		72,563

FOUR CORNERS UNITS 4-5
INTERIM SURVIVOR CURVE.. IOWA 75-S1.5
PROBABLE RETIREMENT YEAR.. 6-2031
NET SALVAGE PERCENT.. -20

1965	11,206	7,881	8,920	4,527	24.49	185
1969	227,829	152,172	172,239	101,156	25.08	4,033
1970	393,797	259,292	293,485	179,071	25.22	7,100
1971	337,247	218,698	247,538	157,158	25.36	6,197
1972	9,664	6,171	6,985	4,612	25.49	181
1973	18,861	11,842	13,404	9,229	25.63	360
1974	64,717	39,925	45,190	32,470	25.76	1,260
1975	1,587	961	1,088	816	25.89	32
1976	53,763	31,935	36,146	28,370	26.02	1,090
1978	233,586	133,032	150,575	129,728	26.26	4,940
1979	249,176	138,651	156,935	142,076	26.38	5,386
1980	29,556	16,045	18,161	17,306	26.50	653
1981	1,590,353	841,042	951,950	956,474	26.61	35,944

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FOUR CORNERS UNITS 4-5						
INTERIM SURVIVOR CURVE.. IOWA 75-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2031						
NET SALVAGE PERCENT.. -20						
1982	871,816	448,392	507,521	538,658	26.72	20,159
1983	73,613	36,756	41,603	46,733	26.82	1,742
1984	4,242,649	2,050,727	2,321,157	2,770,022	26.93	102,860
1985	55,451	25,885	29,298	37,243	27.03	1,378
1986	58,689	26,382	29,861	40,566	27.13	1,495
1987	41,329	17,844	20,197	29,398	27.22	1,080
1988	7,699	3,179	3,598	5,641	27.31	207
1989	65,843	25,900	29,316	49,696	27.40	1,814
1990	3,724	1,389	1,572	2,897	27.48	105
1991	2,619	921	1,042	2,101	27.56	76
1992	60,137	19,773	22,381	49,783	27.64	1,801
1993	332,854	101,574	114,969	284,456	27.71	10,265
1994	64,378	18,031	20,409	56,845	27.78	2,046
1996	6,070	1,372	1,553	5,731	27.91	205
1999	32,297	4,298	4,864	33,892	28.07	1,207
2002	55,075	1,150	1,302	64,788	28.21	2,297
	9,195,585	4,641,220	5,253,259	5,781,443		216,098

NAVAJO UNITS 1-3

INTERIM SURVIVOR CURVE.. IOWA 75-S1.5

PROBABLE RETIREMENT YEAR.. 6-2026

NET SALVAGE PERCENT.. -20

1974	2,327,062	1,555,967	1,600,120	1,192,354	21.78	54,745
1975	3,025,038	1,990,354	2,046,833	1,583,213	21.86	72,425
1976	3,895,313	2,518,086	2,589,540	2,084,836	21.95	94,981
1977	328,968	208,789	214,714	180,048	22.03	8,173
1978	583,152	362,907	373,205	326,577	22.11	14,771
1979	130,615	79,607	81,866	74,872	22.19	3,374
1980	168,986	100,702	103,560	99,223	22.27	4,455
1982	20,024	11,358	11,680	12,349	22.42	551
1983	256,238	141,413	145,426	162,060	22.49	7,206

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NAVAJO UNITS 1-3						
INTERIM SURVIVOR CURVE.. IOWA 75-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2026						
NET SALVAGE PERCENT.. -20						
1984	118,910	63,755	65,564	77,128	22.55	3,420
1985	101,044	52,466	53,955	67,298	22.62	2,975
1986	55,403	27,803	28,592	37,892	22.68	1,671
1987	391,580	189,227	194,597	275,299	22.74	12,106
1988	137,843	63,915	65,729	99,683	22.80	4,372
1991	253,715	101,202	104,074	200,384	22.96	8,728
1992	25,943	9,722	9,998	21,134	23.01	918
1993	30,608	10,685	10,988	25,742	23.06	1,116
1994	531,821	171,225	176,084	462,101	23.10	20,004
1995	275,373	80,728	83,019	247,429	23.14	10,693
1996	68,750	18,043	18,555	63,945	23.18	2,759
1997	13,855,835	3,179,083	3,269,292	13,357,710	23.22	575,267
1998	521,863	101,388	104,264	521,972	23.25	22,450
1999	48,433	7,596	7,812	50,308	23.28	2,161
	27,152,517	11,046,021	11,359,467	21,223,557		929,321

OCOTILLO UNITS 1-2

INTERIM SURVIVOR CURVE.. IOWA 75-S1.5
PROBABLE RETIREMENT YEAR.. 6-2020
NET SALVAGE PERCENT.. -20

1960	767,241	656,267	654,364	266,325	15.85	16,803
1961	74,528	63,319	63,135	26,299	15.91	1,653
1962	2,000	1,687	1,682	718	15.97	45
1964	3,922	3,257	3,248	1,458	16.10	91
1965	2,826	2,327	2,320	1,071	16.16	66
1971	72,614	56,404	56,240	30,897	16.49	1,874
1972	2,153	1,653	1,648	936	16.54	57
1973	7,973	6,048	6,030	3,538	16.59	213
1974	17,824	13,344	13,305	8,084	16.64	486
1975	14,138	10,442	10,412	6,554	16.68	393
1979	2,608	1,806	1,801	1,329	16.86	79

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OCOTILLO UNITS 1-2						
INTERIM SURVIVOR CURVE.. IOWA 75-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2020						
NET SALVAGE PERCENT.. -20						
1981	40,512	26,981	26,903	21,711	16.94	1,282
1982	43,808	28,551	28,468	24,102	16.98	1,419
1983	95,844	61,003	60,826	54,187	17.02	3,184
1985	40,991	24,747	24,675	24,514	17.09	1,434
1988	943,521	516,068	514,572	617,653	17.18	35,952
1990	153,014	76,917	76,694	106,923	17.24	6,202
1991	27,677	13,245	13,207	20,005	17.26	1,159
1992	69,678	31,497	31,406	52,208	17.29	3,020
1993	128,052	54,335	54,177	99,485	17.31	5,747
1994	190,178	74,991	74,774	153,440	17.33	8,854
1999	373,186	74,921	74,704	373,119	17.42	21,419
2000	545,630	82,106	81,867	572,889	17.43	32,868
2002	168,054	5,626	5,610	196,055	17.45	11,235
	3,787,972	1,887,542	1,882,068	2,663,500		155,535

SAGUARO UNITS 1-2
INTERIM SURVIVOR CURVE.. IOWA 75-S1.5
PROBABLE RETIREMENT YEAR.. 6-2014
NET SALVAGE PERCENT.. -20

1954	857,167	830,081	926,562	102,038	10.65	9,581
1957	2,083	1,993	2,225	275	10.74	26
1963	2,787	2,590	2,891	453	10.91	42
1965	13,185	12,113	13,521	2,301	10.96	210
1969	1,991	1,780	1,987	402	11.06	36
1971	199,545	175,616	196,028	43,426	11.10	3,912
1979	14,618	11,798	13,169	4,373	11.26	388
1982	87,344	67,258	75,075	29,738	11.31	2,629
1983	4,553	3,444	3,844	1,620	11.32	143
1984	2,173	1,611	1,798	810	11.34	71
1985	26,518	19,243	21,480	10,342	11.35	911
1987	380,370	262,501	293,012	163,432	11.38	14,361

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SAGUARO UNITS 1-2						
INTERIM SURVIVOR CURVE.. IOWA 75-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2014						
NET SALVAGE PERCENT.. -20						
1989	65,945	42,819	47,796	31,338	11.40	2,749
1990	80,206	50,222	56,059	40,188	11.41	3,522
1991	19,773	11,885	13,266	10,462	11.42	916
1993	29,708	16,156	18,034	17,616	11.44	1,540
1994	64,302	32,833	36,649	40,513	11.45	3,538
1996	594,564	257,993	287,981	425,496	11.46	37,129
	2,446,832	1,801,936	2,011,377	924,823		81,704

YUCCA UNIT 1
INTERIM SURVIVOR CURVE.. IOWA 75-S1.5
PROBABLE RETIREMENT YEAR.. 12-2016
NET SALVAGE PERCENT.. -20

1959	428,565	389,617	447,787	66,491	12.94	5,138
1976	3,690	2,907	3,341	1,087	13.54	80
1984	10,026	6,872	7,898	4,133	13.74	301
1987	9,267	5,863	6,738	4,382	13.80	318
1995	11,019	4,625	5,316	7,907	13.92	568
	462,567	409,884	471,080	84,000		6,405
	115,950,066	57,190,482	64,537,994	74,602,094		3,383,810

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 22.0 2.92

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 312 BOILER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CHOLLA UNIT 1						
INTERIM SURVIVOR CURVE.. IOWA 48-L2						
PROBABLE RETIREMENT YEAR.. 6-2017						
NET SALVAGE PERCENT.. -20						
1962	7,751,728	6,869,581	7,476,885	1,825,189	11.09	164,580
1964	5,759	5,056	5,503	1,408	11.20	126
1965	6,260	5,467	5,950	1,562	11.26	139
1966	29,363	25,504	27,759	7,477	11.32	661
1967	91,912	79,335	86,349	23,945	11.39	2,102
1969	2,354	2,005	2,182	643	11.53	56
1970	9,249	7,816	8,507	2,592	11.62	223
1971	16,679	13,980	15,216	4,799	11.70	410
1973	7,871	6,475	7,047	2,398	11.89	202
1974	5,801,655	4,723,011	5,140,548	1,821,438	11.99	151,913
1975	17,720	14,260	15,521	5,743	12.10	475
1979	55,518	42,225	45,958	20,664	12.57	1,644
1980	88,328	66,023	71,860	34,134	12.70	2,688
1982	3,978	2,860	3,113	1,661	12.95	128
1983	187,488	131,909	143,570	81,416	13.07	6,229
1984	38,059	26,128	28,438	17,233	13.20	1,306
1985	168,969	113,000	122,990	79,773	13.32	5,989
1986	864,700	562,401	612,120	425,520	13.43	31,684
1987	543,710	342,929	373,245	279,207	13.53	20,636
1988	1,016,644	619,624	674,402	545,571	13.63	40,027
1989	827,629	486,050	529,019	464,136	13.72	33,829
1992	670,695	342,779	373,082	431,752	13.94	30,972
1993	131,544	63,267	68,860	88,993	14.01	6,352
1994	11,673	5,236	5,699	8,309	14.07	591
1995	531,959	220,295	239,770	398,581	14.12	28,228
1996	113,871	42,784	46,566	90,079	14.17	6,357
1999	1,990,316	468,600	510,026	1,878,353	14.30	131,353
2000	987,233	175,925	191,478	993,202	14.33	69,309
2001	4,091,108	464,423	505,480	4,403,850	14.36	306,675
2002	367,709	14,826	16,137	425,114	14.39	29,542
	26,431,681	15,943,774	17,353,280	14,364,742		1,074,426

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 312 BOILER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)

CHOLLA UNIT 2

INTERIM SURVIVOR CURVE.. IOWA 48-L2

PROBABLE RETIREMENT YEAR... 6-2033

NET SALVAGE PERCENT.. -20

1978	120,044,294	73,467,108	87,943,832	56,109,321	20.78	2,700,160
1980	1,897,598	1,105,996	1,323,933	953,185	21.46	44,417
1981	237,906	134,864	161,439	124,048	21.82	5,685
1982	61,146	33,643	40,272	33,103	22.19	1,492
1983	332,150	176,810	211,651	186,929	22.58	8,279
1984	65,215	33,518	40,123	38,135	22.96	1,661
1985	398,166	196,997	235,815	241,984	23.35	10,363
1986	570,152	270,663	323,997	360,185	23.74	15,172
1987	1,714,882	778,488	931,890	1,125,968	24.13	46,663
1988	976,245	422,206	505,402	666,092	24.51	27,176
1989	561,382	230,391	275,790	397,868	24.88	15,991
1991	597,395	217,213	260,015	456,859	25.60	17,846
1992	1,200,361	406,778	486,934	953,499	25.95	36,744
1993	131,544	41,184	49,299	108,554	26.29	4,129
1994	11,669	3,341	3,999	10,004	26.62	376
1995	118,184	30,534	36,551	105,270	26.94	3,908
1999	6,175,050	818,812	980,159	6,429,901	28.10	228,822
2000	283,866	27,490	32,907	307,732	28.36	10,851
2001	144,163	8,563	10,250	162,746	28.60	5,690
2002	5,091,124	104,470	125,056	5,984,293	28.82	207,644

140,612,492	78,509,069	93,979,314	74,755,676		3,393,069
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CHOLLA UNIT 3

INTERIM SURVIVOR CURVE.. IOWA 48-L2

PROBABLE RETIREMENT YEAR.. 6-2035

NET SALVAGE PERCENT.. -20

1980	91,600,168	52,354,992	60,794,534	49,125,668	22.21	2,211,872
1981	88,342	49,072	56,982	49,028	22.60	2,169
1982	61,283	33,027	38,351	35,189	22.99	1,531
1983	307,043	159,982	185,771	182,681	23.40	7,807
1984	54,259	27,262	31,657	33,454	23.82	1,404

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 312 BOILER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CHOLLA UNIT 3						
INTERIM SURVIVOR CURVE.. IOWA 48-L2						
PROBABLE RETIREMENT YEAR.. 6-2035						
NET SALVAGE PERCENT.. -20						
1985	589,413	284,828	330,742	376,554	24.24	15,534
1986	440,024	203,819	236,674	291,355	24.66	11,815
1987	1,127,680	498,931	579,358	773,858	25.08	30,856
1988	602,528	253,857	294,778	428,256	25.49	16,801
1989	361,975	144,471	167,760	266,610	25.90	10,294
1993	175,984	53,302	61,894	149,287	27.46	5,437
1994	11,669	3,226	3,746	10,257	27.83	369
1999	458,424	58,036	67,391	482,718	29.52	16,352
2000	4,173,884	387,670	450,162	4,558,499	29.81	152,918
2001	10,756	613	712	12,195	30.09	405
2002	385,533	7,495	8,703	453,937	30.35	14,957
	100,448,965	54,520,583	63,309,215	57,229,546		2,500,521

CHOLLA COMMON

INTERIM SURVIVOR CURVE.. IOWA 48-L2
PROBABLE RETIREMENT YEAR.. 6-2035
NET SALVAGE PERCENT.. -20

1962	720,871	533,127	621,084	243,961	17.79	13,713
1978	9,113,634	5,478,023	6,381,802	4,554,559	21.48	212,037
1980	1,887,095	1,078,588	1,256,536	1,007,978	22.21	45,384
1981	1,629,924	905,390	1,054,764	901,145	22.60	39,874
1982	204,415	110,163	128,338	116,960	22.99	5,087
1983	453,867	236,483	275,499	269,141	23.40	11,502
1984	789,195	396,523	461,942	485,092	23.82	20,365
1985	38,739	18,720	21,808	24,679	24.24	1,018
1986	83,972	38,896	45,313	55,453	24.66	2,249
1987	50,992	22,561	26,283	34,907	25.08	1,392
1988	390,010	164,319	191,429	276,583	25.49	10,851
1989	992,133	395,980	461,310	729,250	25.90	28,156
1990	124,479	46,859	54,590	94,785	26.30	3,604
1991	175,915	62,021	72,253	138,845	26.70	5,200

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 312 BOILER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CHOLLA COMMON						
INTERIM SURVIVOR CURVE.. IOWA 48-L2						
PROBABLE RETIREMENT YEAR.. 6-2035						
NET SALVAGE PERCENT.. -20						
1993	32,042	9,705	11,306	27,144	27.46	988
1994	1,330,237	367,784	428,463	1,167,821	27.83	41,963
1996	94,792	20,885	24,331	89,419	28.54	3,133
1998	24,365	3,889	4,531	24,707	29.20	846
2000	3,434,518	318,998	371,627	3,749,795	29.81	125,790
2001	783,936	44,684	52,056	888,667	30.09	29,534
2002	270,920	5,267	6,136	318,968	30.35	10,510
	22,626,051	10,258,865	11,951,401	15,199,859		613,196

FOUR CORNERS UNITS 1-3
INTERIM SURVIVOR CURVE.. IOWA 48-L2
PROBABLE RETIREMENT YEAR.. 6-2016
NET SALVAGE PERCENT.. -20

1963	6,758,108	6,055,535	5,256,233	2,853,497	10.57	269,962
1964	10,296,561	9,182,885	7,970,787	4,385,086	10.62	412,908
1965	237,400	210,697	182,886	101,994	10.67	9,559
1966	30,135	26,601	23,090	13,072	10.73	1,218
1967	159,048	139,574	121,151	69,707	10.79	6,460
1968	187,736	163,758	142,143	83,140	10.85	7,663
1969	15,218	13,185	11,445	6,817	10.92	624
1970	34,489	29,658	25,743	15,644	11.00	1,422
1972	26,594,905	22,492,907	19,523,948	12,389,938	11.16	1,110,209
1973	2,471,871	2,071,922	1,798,438	1,167,807	11.24	103,897
1974	713,856	592,358	514,169	342,458	11.33	30,226
1975	1,304,528	1,070,600	929,286	636,148	11.43	55,656
1976	1,482,297	1,202,261	1,043,568	735,188	11.53	63,763
1977	3,419,956	2,738,564	2,377,086	1,726,861	11.63	148,483
1978	769,128	607,303	527,142	395,812	11.74	33,715
1979	20,598,276	16,022,163	13,907,312	10,810,619	11.85	912,289
1980	4,929,278	3,771,489	3,273,670	2,641,464	11.96	220,858
1981	1,593,691	1,197,946	1,039,823	872,606	12.07	72,295

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 312 BOILER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FOUR CORNERS UNITS 1-3						
INTERIM SURVIVOR CURVE.. IOWA 48-L2						
PROBABLE RETIREMENT YEAR.. 6-2016						
NET SALVAGE PERCENT.. -20						
1982	1,985,857	1,463,418	1,270,254	1,112,774	12.19	91,286
1983	2,337,277	1,686,486	1,463,878	1,340,854	12.30	109,013
1984	4,215,644	2,974,053	2,581,492	2,477,281	12.40	199,781
1985	1,295,698	891,388	773,729	781,109	12.51	62,439
1986	5,550,404	3,717,883	3,227,140	3,433,345	12.60	272,488
1987	874,164	568,451	493,418	555,579	12.69	43,781
1988	4,236,229	2,665,774	2,313,904	2,769,571	12.78	216,711
1989	3,165,160	1,922,265	1,668,535	2,129,657	12.85	165,732
1990	9,061,356	5,290,020	4,591,762	6,281,865	12.92	486,212
1991	4,270,649	2,385,072	2,070,253	3,054,526	12.98	235,326
1992	1,381,535	733,264	636,477	1,021,365	13.04	78,326
1993	1,541,140	771,926	670,035	1,179,333	13.09	90,094
1994	663,477	310,905	269,867	526,305	13.14	40,054
1996	4,189,258	1,649,395	1,431,683	3,595,427	13.23	271,763
1997	732,068	256,429	222,582	655,900	13.27	49,427
1998	2,032,166	615,502	534,259	1,904,340	13.30	143,183
1999	22,587,525	5,621,583	4,879,559	22,225,471	13.34	1,666,077
2000	7,367,734	1,388,081	1,204,861	7,636,420	13.37	571,161
2001	3,599,652	434,982	377,566	3,942,016	13.39	294,400
2002	34,456,283	1,484,377	1,288,446	40,059,094	13.42	2,985,029
	197,139,757	104,420,660	90,637,620	145,930,090		11,533,490

FOUR CORNERS COMMON

INTERIM SURVIVOR CURVE.. IOWA 48-L2
PROBABLE RETIREMENT YEAR.. 6-2031
NET SALVAGE PERCENT.. -20

1963	2,134,342	1,610,489	2,303,033	258,177	16.93	15,250
1992	438,444	153,789	219,921	306,212	24.74	12,377
1993	12,365	4,015	5,742	9,096	25.04	363
1994	594,471	176,843	252,889	460,476	25.33	18,179
1996	5,400	1,290	1,845	4,635	25.88	179

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 312 BOILER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FOUR CORNERS COMMON						
INTERIM SURVIVOR CURVE.. IOWA 48-L2						
PROBABLE RETIREMENT YEAR.. 6-2031						
NET SALVAGE PERCENT.. -20						
1999	2,504	348	498	2,507	26.61	94
2002	102,865	2,234	3,194	120,244	27.20	4,421
	3,290,391	1,949,008	2,787,122	1,161,347		50,863

FOUR CORNERS UNITS 4-5
INTERIM SURVIVOR CURVE.. IOWA 48-L2
PROBABLE RETIREMENT YEAR.. 6-2031
NET SALVAGE PERCENT.. -20

1969	1,388,013	995,705	1,037,348	628,268	17.85	35,197
1970	6,760,776	4,798,799	4,999,499	3,113,432	18.03	172,681
1971	260,556	182,754	190,397	122,270	18.23	6,707
1972	35,207	24,377	25,397	16,851	18.45	913
1973	282,534	192,982	201,053	137,988	18.67	7,391
1974	751,008	505,218	526,348	374,862	18.91	19,823
1975	38,281	25,334	26,394	19,543	19.17	1,019
1976	71,894	46,751	48,706	37,567	19.43	1,933
1977	439,821	280,465	292,195	235,590	19.72	11,947
1978	569,026	355,414	370,278	312,553	20.01	15,620
1979	1,721,144	1,050,655	1,094,596	970,777	20.32	47,774
1980	790,930	470,856	490,549	458,567	20.65	22,207
1981	1,055,469	611,750	637,335	629,228	20.98	29,992
1982	37,150,787	20,904,005	21,778,272	22,802,672	21.33	1,069,042
1983	233,709	127,409	132,738	147,713	21.68	6,813
1984	34,392,552	18,126,251	18,884,344	22,386,718	22.03	1,016,192
1985	887,238	450,468	469,308	595,378	22.39	26,591
1986	4,335,815	2,113,970	2,202,382	3,000,596	22.75	131,894
1987	861,532	402,267	419,091	614,747	23.10	26,612
1988	943,523	420,283	437,860	694,368	23.44	29,623
1989	7,185,027	3,040,129	3,167,276	5,454,756	23.78	229,384
1990	747,180	298,752	311,247	585,369	24.11	24,279
1991	4,090,741	1,537,464	1,601,765	3,307,124	24.43	135,371

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 312 BOILER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
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FOUR CORNERS UNITS 4-5

INTERIM SURVIVOR CURVE.. IOWA 48-L2

PROBABLE RETIREMENT YEAR.. 6-2031

NET SALVAGE PERCENT.. -20

1992	1,000	351	366	834	24.74	34
1993	843,463	273,889	285,344	726,812	25.04	29,026
1994	1,678,748	499,394	520,280	1,494,218	25.33	58,990
1995	546	147	153	502	25.61	20
1996	904,465	215,986	225,019	860,339	25.88	33,243
1997	737,508	152,930	159,326	725,684	26.13	27,772
1998	13,408	2,331	2,428	13,662	26.38	518
1999	175,709	24,395	25,415	185,436	26.61	6,969
2000	630,031	64,490	67,188	688,849	26.82	25,684
2001	118,133	7,457	7,769	133,991	27.02	4,959
2002	1,496,099	32,495	33,854	1,761,465	27.20	64,760
	111,591,873	58,235,923	60,671,520	73,238,729		3,320,980

NAVAJO UNITS 1-3

INTERIM SURVIVOR CURVE.. IOWA 48-L2

PROBABLE RETIREMENT YEAR.. 6-2026

NET SALVAGE PERCENT.. -20

1974	14,521,356	10,309,001	10,613,768	6,811,859	16.89	403,307
1975	18,453,164	12,903,190	13,284,649	8,859,148	17.10	518,079
1976	22,806,502	15,692,698	16,156,623	11,211,179	17.31	647,671
1977	301,077	203,480	209,496	151,796	17.54	8,654
1978	570,796	378,438	389,626	295,329	17.78	16,610
1979	188,114	122,124	125,734	100,003	18.03	5,546
1980	2,040,145	1,295,084	1,333,371	1,114,803	18.28	60,985
1981	1,783,156	1,103,916	1,136,551	1,003,236	18.55	54,083
1982	507,842	306,046	315,094	294,316	18.82	15,638
1983	1,572,906	920,905	948,130	939,357	19.09	49,207
1984	443,832	251,866	259,312	273,286	19.36	14,116
1985	587,532	322,132	331,655	373,383	19.64	19,011
1986	2,483,250	1,312,050	1,350,838	1,629,062	19.91	81,821
1987	289,940	147,208	151,560	196,368	20.17	9,736

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 312 BOILER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NAVAJO UNITS 1-3						
INTERIM SURVIVOR CURVE.. IOWA 48-L2						
PROBABLE RETIREMENT YEAR.. 6-2026						
NET SALVAGE PERCENT.. -20						
1988	690,516	335,756	345,682	482,937	20.42	23,650
1989	40,325	18,708	19,261	29,129	20.66	1,410
1990	4,385,568	1,929,825	1,986,877	3,275,805	20.90	156,737
1991	1,454,775	604,546	622,418	1,123,312	21.12	53,187
1992	1,283,648	500,315	515,106	1,025,272	21.33	48,067
1993	594,594	215,338	221,704	491,809	21.54	22,832
1994	1,496,967	499,029	513,782	1,282,578	21.73	59,023
1995	724,344	219,650	226,144	643,069	21.91	29,350
1996	730,614	197,967	203,820	672,917	22.08	30,476
1997	25,597,754	6,054,381	6,233,367	24,483,938	22.24	1,100,896
1998	17,044,540	3,409,590	3,510,388	16,943,060	22.39	756,724
1999	22,050,238	3,548,324	3,653,223	22,807,063	22.53	1,012,298
2000	1,412,959	168,538	173,521	1,522,030	22.66	67,168
2001	4,979,139	369,253	380,169	5,594,798	22.78	245,601
2002	314,650	8,080	8,319	369,261	22.88	16,139
	149,350,243	63,347,438	65,220,188	114,000,103		5,528,022

OCOTILLO UNITS 1-2

INTERIM SURVIVOR CURVE.. IOWA 48-L2

PROBABLE RETIREMENT YEAR.. 6-2020

NET SALVAGE PERCENT.. -20

1960	9,019,459	7,732,202	9,008,431	1,814,920	12.53	144,846
1961	155,278	132,558	154,437	31,897	12.59	2,534
1963	5,842	4,939	5,754	1,256	12.72	99
1965	1,292	1,080	1,258	292	12.87	23
1966	972	807	940	226	12.95	17
1967	12,120	9,999	11,649	2,895	13.04	222
1969	29,287	23,800	27,728	7,416	13.23	561
1973	1,713,941	1,339,959	1,561,125	495,604	13.69	36,202
1974	41,885	32,349	37,688	12,574	13.83	909
1975	33,471	25,521	29,733	10,432	13.97	747

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 312 BOILER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OCOTILLO UNITS 1-2						
INTERIM SURVIVOR CURVE.. IOWA 48-L2						
PROBABLE RETIREMENT YEAR.. 6-2020						
NET SALVAGE PERCENT.. -20						
1976	93,157	70,069	81,634	30,154	14.11	2,137
1977	69,896	51,768	60,313	23,562	14.27	1,651
1978	121,661	88,632	103,261	42,732	14.43	2,961
1979	1,938,136	1,387,318	1,616,300	709,463	14.59	48,627
1980	2,935,699	2,060,861	2,401,015	1,121,824	14.76	76,004
1981	215,404	148,086	172,528	85,957	14.93	5,757
1982	323,714	217,497	253,396	135,061	15.11	8,939
1984	8,666	5,530	6,443	3,956	15.45	256
1985	92,232	57,176	66,613	44,065	15.62	2,821
1986	78,895	47,384	55,205	39,469	15.78	2,501
1987	3,020,158	1,752,658	2,041,941	1,582,249	15.93	99,325
1990	30,140	15,447	17,997	18,171	16.34	1,112
1991	256,934	125,117	145,768	162,553	16.46	9,876
1992	20,518	9,437	10,995	13,627	16.57	822
1993	249,520	107,583	125,340	174,084	16.67	10,443
1994	31,221	12,510	14,575	22,890	16.76	1,366
1995	21,126	7,757	9,037	16,314	16.85	968
1996	112,113	37,118	43,244	91,292	16.93	5,392
1997	1,353,674	395,381	460,640	1,163,769	17.00	68,457
1998	345,801	86,436	100,703	314,258	17.07	18,410
1999	344,096	69,865	81,396	331,519	17.14	19,342
2000	559,595	85,282	99,358	572,156	17.19	33,284
2001	677,289	65,020	75,752	736,995	17.24	42,749
2002	239,159	8,064	9,395	277,596	17.29	16,055
	24,152,351	16,215,210	18,891,592	10,091,228		665,415

SAGUARO UNITS 1-2

INTERIM SURVIVOR CURVE.. IOWA 48-L2

PROBABLE RETIREMENT YEAR.. 6-2014

NET SALVAGE PERCENT.. -20

1953	1	1	1
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ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 312 BOILER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SAGUARO UNITS 1-2						
INTERIM SURVIVOR CURVE.. IOWA 48-L2						
PROBABLE RETIREMENT YEAR.. 6-2014						
NET SALVAGE PERCENT.. -20						
1954	2,133,959	2,031,444	2,371,035	189,716	9.07	20,917
1955	4,018,724	3,816,502	4,454,496	367,973	9.10	40,437
1956	446	422	493	42	9.13	5
1958	10,741	10,121	11,813	1,076	9.18	117
1959	10,963	10,298	12,019	1,137	9.21	123
1960	641	600	700	69	9.24	7
1961	7,479	6,981	8,148	827	9.27	89
1963	14,147	13,107	15,298	1,678	9.34	180
1966	11,963	10,933	12,761	1,595	9.47	168
1967	18,927	17,207	20,083	2,629	9.52	276
1971	2,261,033	2,004,270	2,339,318	373,922	9.74	38,390
1972	27,414	24,120	28,152	4,745	9.80	484
1973	2,615,428	2,281,699	2,663,124	475,390	9.87	48,165
1974	4,632	4,005	4,675	883	9.94	89
1976	133,790	113,363	132,314	28,234	10.09	2,798
1977	689,144	577,227	673,720	153,253	10.17	15,069
1978	438,051	362,233	422,786	102,875	10.26	10,027
1979	60,574	49,428	57,691	14,998	10.34	1,450
1980	8,376	6,735	7,861	2,190	10.42	210
1981	218,080	172,536	201,378	60,318	10.51	5,739
1982	94,876	73,787	86,122	27,729	10.59	2,618
1983	282,239	215,439	251,453	87,234	10.67	8,176
1985	1,546,345	1,130,069	1,318,980	536,634	10.83	49,551
1986	1,322,775	943,350	1,101,047	486,283	10.90	44,613
1989	270,571	176,661	206,193	118,492	11.07	10,704
1990	121,345	76,360	89,125	56,489	11.12	5,080
1992	46,103	26,583	31,027	24,297	11.20	2,169
1994	20,000	10,262	11,977	12,023	11.27	1,067
1995	56,167	26,758	31,231	36,169	11.30	3,201
1996	351,130	153,247	178,865	242,491	11.32	21,421
2001	3,102,325	431,471	503,599	3,219,191	11.44	281,398
2002	4,489,323	225,184	262,827	5,124,361	11.45	447,542

24,387,712 15,002,403 17,510,312 11,754,943 1,062,280

800,031,516 418,402,933 442,311,564 517,726,263 29,742,262

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 17.4 3.72

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 314 TURBOGENERATOR UNITS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CHOLLA UNIT 1						
INTERIM SURVIVOR CURVE.. IOWA 65-R2						
PROBABLE RETIREMENT YEAR.. 6-2017						
NET SALVAGE PERCENT.. -20						
1962	4,748,340	4,156,697	5,037,619	660,389	13.29	49,691
1964	568	490	594	88	13.39	7
1966	13,265	11,284	13,675	2,243	13.48	166
1967	1,383	1,167	1,414	246	13.52	18
1969	3,414	2,832	3,432	665	13.60	49
1970	3,114	2,559	3,101	636	13.64	47
1980	2,057,774	1,488,018	1,803,372	665,957	13.94	47,773
1981	314,942	223,773	271,197	106,733	13.96	7,646
1983	161,167	109,948	133,249	60,151	14.01	4,293
1985	57,874	37,655	45,635	23,814	14.05	1,695
1989	48,329	27,722	33,597	24,398	14.13	1,727
1994	578,605	254,748	308,736	385,590	14.20	27,154
1995	17,703	7,180	8,702	12,542	14.22	882
1998	1,329,061	374,795	454,225	1,140,648	14.26	79,989
2001	189,572	21,224	25,722	201,764	14.29	14,119
2002	892,262	35,441	42,952	1,027,762	14.30	71,871
	10,417,373	6,755,533	8,187,222	4,313,626		307,127

CHOLLA UNIT 2
INTERIM SURVIVOR CURVE.. IOWA 65-R2
PROBABLE RETIREMENT YEAR.. 6-2033
NET SALVAGE PERCENT.. -20

1978	25,377,910	13,646,210	17,921,660	12,531,832	27.12	462,088
1983	602,695	282,784	371,382	351,852	27.75	12,679
1984	17,857	8,104	10,643	10,785	27.87	387
1988	71,509	27,640	36,300	49,511	28.28	1,751
1991	16,827	5,521	7,251	12,941	28.55	453
1994	110,349	28,801	37,824	94,595	28.79	3,286
1995	17,703	4,179	5,488	15,756	28.87	546
2001	175,750	9,828	12,907	197,993	29.26	6,767
2002	2,161,289	40,978	53,817	2,539,730	29.32	86,621
	28,551,889	14,054,045	18,457,272	15,804,995		574,578

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 314 TURBOGENERATOR UNITS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)

CHOLLA UNIT 3

INTERIM SURVIVOR CURVE.. IOWA 65-R2

PROBABLE RETIREMENT YEAR.. 6-2035

NET SALVAGE PERCENT.. -20

1980	23,029,627	11,399,665	14,802,078	12,833,474	28.87	444,526
1982	128,668	60,139	78,088	76,314	29.15	2,618
1983	1,182,069	535,052	694,747	723,736	29.29	24,709
1985	185,638	78,302	101,673	121,093	29.55	4,098
1986	1,413,874	573,467	744,627	952,022	29.67	32,087
1987	2,980,966	1,159,357	1,505,386	2,071,773	29.78	69,569
1988	1,667,007	618,726	803,395	1,197,013	29.90	40,034
1993	513,116	139,342	180,931	434,808	30.40	14,303
1994	766,237	190,701	247,619	671,865	30.49	22,036
1995	17,708	3,982	5,170	16,080	30.58	526
2000	6,803,365	582,912	756,892	7,407,146	30.97	239,172
2002	937,922	16,770	21,775	1,103,731	31.11	35,478
	39,626,197	15,358,415	19,942,381	27,609,055		929,156

CHOLLA COMMON

INTERIM SURVIVOR CURVE.. IOWA 65-R2

PROBABLE RETIREMENT YEAR.. 6-2035

NET SALVAGE PERCENT.. -20

1978	232,842	121,320	155,614	123,796	28.56	4,335
1981	370,946	178,588	229,071	216,064	29.01	7,448
1998	27,490	4,005	5,137	27,851	30.82	904
	631,278	303,913	389,822	367,711		12,687

FOUR CORNERS UNITS 1-3

INTERIM SURVIVOR CURVE.. IOWA 65-R2

PROBABLE RETIREMENT YEAR.. 6-2016

NET SALVAGE PERCENT.. -20

1963	18,336,450	16,243,161	18,057,871	3,945,869	12.50	315,670
1966	3,145	2,729	3,034	740	12.62	59

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 314 TURBOGENERATOR UNITS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FOUR CORNERS UNITS 1-3						
INTERIM SURVIVOR CURVE.. IOWA 65-R2						
PROBABLE RETIREMENT YEAR.. 6-2016						
NET SALVAGE PERCENT.. -20						
1968	77,343	66,082	73,465	19,347	12.69	1,525
1969	11,060	9,369	10,416	2,856	12.73	224
1971	128,769	107,146	119,117	35,406	12.79	2,768
1977	9,291	7,225	8,032	3,117	12.95	241
1978	97,017	74,369	82,678	33,742	12.98	2,600
1979	3,588,036	2,709,972	3,012,734	1,292,909	13.00	99,455
1980	545,643	405,631	450,949	203,823	13.02	15,655
1981	157,102	114,810	127,637	60,885	13.04	4,669
1983	1,090,098	766,295	851,906	456,212	13.08	34,879
1985	159,346	107,004	118,959	72,256	13.12	5,507
1986	129,088	84,501	93,942	60,964	13.13	4,643
1988	65,925	40,623	45,161	33,949	13.17	2,578
1991	430,086	235,550	261,866	254,237	13.21	19,246
1997	119,831	41,356	45,976	97,821	13.28	7,366
1998	700,284	208,657	231,968	608,373	13.29	45,777
2000	4,600,335	858,423	954,327	4,566,075	13.31	343,056
2001	1,826,281	217,839	242,176	1,949,361	13.32	146,348
2002	4,337,796	184,790	205,435	4,999,920	13.33	375,088
	36,412,926	22,485,532	24,997,649	18,697,862		1,427,354

FOUR CORNERS COMMON

INTERIM SURVIVOR CURVE.. IOWA 65-R2

PROBABLE RETIREMENT YEAR.. 6-2031

NET SALVAGE PERCENT.. -20

1963	1,726,164	1,222,538	1,965,225	106,172	23.29	4,559
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ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 314 TURBOGENERATOR UNITS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FOUR CORNERS UNITS 4-5						
INTERIM SURVIVOR CURVE.. IOWA 65-R2						
PROBABLE RETIREMENT YEAR.. 6-2031						
NET SALVAGE PERCENT.. -20						
1969	1,940,428	1,269,738	1,592,754	735,760	24.37	30,191
1970	4,817,454	3,105,524	3,895,556	1,885,389	24.53	76,861
1971	30,384	19,277	24,181	12,280	24.69	497
1976	2,236	1,297	1,627	1,056	25.38	42
1977	1,540	875	1,098	750	25.51	29
1978	10	6	8	4	25.63	
1979	5,372	2,917	3,659	2,787	25.75	108
1981	141,365	72,961	91,522	78,116	25.97	3,008
1983	39,270	19,132	23,999	23,125	26.17	884
1984	5,969	2,816	3,532	3,631	26.27	138
1985	233,750	106,562	133,671	146,829	26.36	5,570
1986	5,799	2,547	3,195	3,764	26.45	142
1987	2,975,107	1,254,543	1,573,693	1,996,435	26.54	75,224
1989	50,704	19,495	24,454	36,391	26.70	1,363
1991	640,853	220,325	276,375	492,649	26.85	18,348
1994	57,215	15,695	19,688	48,970	27.06	1,810
1995	141,621	35,264	44,235	125,710	27.12	4,635
1996	685,450	152,170	190,881	631,659	27.18	23,240
1997	277,538	53,654	67,303	265,743	27.24	9,756
1998	26,867	4,369	5,480	26,760	27.30	980
2000	97,215	9,356	11,736	104,922	27.40	3,829
2001	29,349	1,754	2,200	33,019	27.45	1,203
2002	2,282,742	47,116	59,103	2,680,187	27.50	97,461
	14,488,238	6,417,393	8,049,950	9,335,936		355,319

NAVAJO UNITS 1-3

INTERIM SURVIVOR CURVE.. IOWA 65-R2

PROBABLE RETIREMENT YEAR.. 6-2026

NET SALVAGE PERCENT.. -20

1974	4,253,886	2,787,146	3,265,464	1,839,199	21.35	86,145
1975	5,249,536	3,384,061	3,964,819	2,334,624	21.43	108,942

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 314 TURBOGENERATOR UNITS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NAVAJO UNITS 1-3						
INTERIM SURVIVOR CURVE.. IOWA 65-R2						
PROBABLE RETIREMENT YEAR.. 6-2026						
NET SALVAGE PERCENT.. -20						
1976	6,498,672	4,115,999	4,822,368	2,976,038	21.52	138,292
1977	132,226	82,208	96,316	62,355	21.60	2,887
1978	227,664	138,757	162,570	110,627	21.68	5,103
1979	51,426	30,707	35,977	25,734	21.75	1,183
1980	322,402	188,218	220,519	166,363	21.83	7,621
1982	493,981	274,634	321,765	271,012	21.96	12,341
1983	342,636	185,352	217,161	194,002	22.03	8,806
1984	22,320	11,726	13,738	13,046	22.09	591
1986	315,992	155,392	182,060	197,130	22.21	8,876
1988	377,868	171,854	201,347	252,095	22.32	11,295
1989	40,324	17,531	20,540	27,849	22.37	1,245
1990	141,060	58,365	68,381	100,891	22.42	4,500
1991	120,098	47,054	55,129	88,989	22.46	3,962
1992	663,150	244,066	285,952	509,828	22.51	22,649
1993	1,288,878	442,188	518,075	1,028,579	22.55	45,613
1994	865,158	273,667	320,632	717,558	22.60	31,750
1995	157,606	45,391	53,181	135,946	22.64	6,005
1996	29,682	7,658	8,972	26,646	22.68	1,175
1997	1,481,896	334,849	392,315	1,385,960	22.71	61,029
1998	161,562	30,942	36,252	157,622	22.75	6,928
1999	394,547	61,029	71,502	401,954	22.78	17,645
2001	117,198	8,396	9,837	130,801	22.85	5,724
2002	637,342	15,679	18,370	746,440	22.88	32,624
	24,387,110	13,112,869	15,363,242	13,901,288		632,931

OCOTILLO UNITS 1-2

INTERIM SURVIVOR CURVE.. IOWA 65-R2

PROBABLE RETIREMENT YEAR.. 6-2020

NET SALVAGE PERCENT.. -20

1960	9,246,108	7,808,893	10,238,105	857,225	15.52	55,234
1962	18,504	15,399	20,189	2,016	15.67	129

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 314 TURBOGENERATOR UNITS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OCOTILLO UNITS 1-2						
INTERIM SURVIVOR CURVE.. IOWA 65-R2						
PROBABLE RETIREMENT YEAR.. 6-2020						
NET SALVAGE PERCENT.. -20						
1970	599	463	607	112	16.19	7
1971	1,043,214	797,934	1,046,158	205,699	16.25	12,658
1973	3,106	2,319	3,040	687	16.35	42
1981	694,777	455,718	597,484	236,248	16.68	14,164
1982	287,166	184,292	241,622	102,977	16.72	6,159
1985	541,049	321,838	421,956	227,303	16.82	13,514
1987	34,410	19,234	25,217	16,075	16.87	953
1992	706,387	315,331	413,425	434,239	17.00	25,543
1996	436,340	140,536	184,255	339,353	17.09	19,857
1997	2,950	840	1,101	2,439	17.11	143
1998	765,798	186,548	244,580	674,378	17.12	39,391
1999	254,665	50,576	66,309	239,289	17.14	13,961
2001	138,745	13,036	17,091	149,403	17.18	8,696
2002	1,343,783	44,667	58,563	1,553,977	17.19	90,400
	15,517,601	10,357,624	13,579,702	5,041,420		300,851

SAGUARO UNITS 1-2

INTERIM SURVIVOR CURVE.. IOWA 65-R2

PROBABLE RETIREMENT YEAR.. 6-2014

NET SALVAGE PERCENT.. -20

1955	3,822,099	3,655,455	3,945,585	640,934	10.51	60,983
1959	2,279	2,142	2,312	423	10.66	40
1961	2,664	2,478	2,675	522	10.73	49
1962	35,456	32,812	35,416	7,131	10.76	663
1963	12,012	11,056	11,934	2,480	10.79	230
1967	3,828	3,436	3,709	885	10.91	81
1968	14,140	12,606	13,607	3,361	10.93	308
1970	20,234	17,766	19,176	5,105	10.98	465
1971	5,354,059	4,663,171	5,033,281	1,391,590	11.00	126,508
1972	136	117	126	37	11.02	3
1974	928	786	848	266	11.06	24

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 314 TURBOGENERATOR UNITS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SAGUARO UNITS 1-2						
INTERIM SURVIVOR CURVE.. IOWA 65-R2						
PROBABLE RETIREMENT YEAR.. 6-2014						
NET SALVAGE PERCENT.. -20						
1975	559,911	469,519	506,784	165,109	11.08	14,902
1977	284,980	233,672	252,218	89,758	11.11	8,079
1978	3,316	2,685	2,898	1,081	11.13	97
1981	140,142	108,638	117,261	50,909	11.18	4,554
1982	61,117	46,600	50,299	23,041	11.19	2,059
1986	323,571	227,069	245,091	143,194	11.24	12,740
1987	43,158	29,510	31,852	19,938	11.25	1,772
1990	47,690	29,570	31,917	25,311	11.29	2,242
1993	69,053	37,239	40,195	42,669	11.31	3,773
1994	2,298,293	1,164,407	1,256,825	1,501,127	11.32	132,608
1995	1,617,002	761,026	821,428	1,118,974	11.33	98,762
1996	4,468	1,923	2,076	3,286	11.34	290
1998	1,414,089	474,795	512,478	1,184,429	11.35	104,355
2002	125,073	6,199	6,691	143,397	11.38	12,601

16,259,698 11,994,677 12,946,682 6,564,957 588,188

188,018,474 102,062,539 123,879,147 101,743,022 5,132,750

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 19.8 2.73

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CHOLLA UNIT 1						
INTERIM SURVIVOR CURVE.. IOWA 60-R2.5						
PROBABLE RETIREMENT YEAR.. 6-2017						
NET SALVAGE PERCENT.. -20						
1962	1,404,779	1,242,049	1,350,425	335,310	12.96	25,873
1963	225,950	198,366	215,675	55,465	13.04	4,253
1964	3,218	2,804	3,049	813	13.12	62
1965	1,683	1,455	1,582	438	13.20	33
1966	5,211	4,470	4,860	1,393	13.27	105
1967	1,432	1,219	1,325	393	13.33	29
1974	460,713	365,438	397,325	155,531	13.71	11,344
1978	15,032	11,296	12,282	5,756	13.87	415
1981	21,818	15,586	16,946	9,236	13.97	661
1983	152,040	104,287	113,387	69,061	14.03	4,922
1984	1,629,565	1,092,330	1,187,642	767,836	14.06	54,611
1985	53,883	35,246	38,321	26,339	14.08	1,871
1986	31,914	20,309	22,081	16,216	14.11	1,149
1987	59,691	36,882	40,100	31,529	14.13	2,231
1988	7,516	4,495	4,887	4,132	14.15	292
1990	67,396	37,324	40,581	40,294	14.19	2,840
1991	26,437	13,984	15,204	16,520	14.21	1,163
2001	588,628	66,044	71,807	634,547	14.35	44,219
	4,756,906	3,253,584	3,537,479	2,170,809		156,073

CHOLLA UNIT 2

INTERIM SURVIVOR CURVE.. IOWA 60-R2.5

PROBABLE RETIREMENT YEAR.. 6-2033

NET SALVAGE PERCENT.. -20

1978	39,750,065	21,846,636	28,662,246	19,037,832	26.69	713,295
1981	5,872	2,980	3,910	3,136	27.26	115
1983	30,039	14,347	18,823	17,224	27.59	624
1985	590	263	345	363	27.90	13
1986	1,301,479	557,397	731,291	830,484	28.04	29,618
1987	223,461	91,708	120,319	147,834	28.18	5,246
1988	277,444	108,802	142,745	190,188	28.30	6,720

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)

CHOLLA UNIT 2
INTERIM SURVIVOR CURVE.. IOWA 60-R2.5
PROBABLE RETIREMENT YEAR.. 6-2033
NET SALVAGE PERCENT.. -20

1991	26,433	8,790	11,532	20,188	28.65	705
1995	99,447	23,760	31,173	88,163	29.04	3,036
1999	58,139	7,221	9,474	60,293	29.36	2,054
2000	462,649	42,194	55,357	499,822	29.43	16,983
	42,235,618	22,704,098	29,787,215	20,895,527		778,409

CHOLLA UNIT 3
INTERIM SURVIVOR CURVE.. IOWA 60-R2.5
PROBABLE RETIREMENT YEAR.. 6-2035
NET SALVAGE PERCENT.. -20

1980	26,570,552	13,455,328	17,309,500	14,575,162	28.46	512,128
1981	5,393	2,653	3,413	3,059	28.67	107
1982	33,272	15,871	20,417	19,509	28.87	676
1983	126,688	58,499	75,256	76,770	29.06	2,642
1985	448,593	192,769	247,986	290,326	29.42	9,868
1986	1,260,075	520,310	669,349	842,741	29.58	28,490
1987	111,014	43,882	56,452	76,765	29.74	2,581
1988	398,681	150,414	193,499	284,918	29.89	9,532
1990	637,276	215,960	277,819	486,912	30.17	16,139
1991	26,440	8,424	10,837	20,891	30.30	689
1995	299,222	68,115	87,626	271,440	30.76	8,824
	29,917,206	14,732,225	18,952,154	16,948,493		591,676

CHOLLA COMMON
INTERIM SURVIVOR CURVE.. IOWA 60-R2.5
PROBABLE RETIREMENT YEAR.. 6-2035
NET SALVAGE PERCENT.. -20

1962	7,471	5,411	7,038	1,927	22.78	85
1978	2,491,361	1,330,686	1,730,891	1,258,742	28.01	44,939

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CHOLLA COMMON						
INTERIM SURVIVOR CURVE.. IOWA 60-R2.5						
PROBABLE RETIREMENT YEAR.. 6-2035						
NET SALVAGE PERCENT.. -20						
1980	807,017	408,673	531,581	436,839	28.46	15,349
1981	331,945	163,317	212,435	185,899	28.67	6,484
1982	45,894	21,891	28,475	26,598	28.87	921
1984	23,257	10,374	13,494	14,414	29.24	493
1987	3,838	1,517	1,973	2,633	29.74	89
1990	487,071	165,059	214,700	369,785	30.17	12,257
1992	92,682	27,527	35,806	75,412	30.43	2,478
1993	15,378	4,233	5,506	12,948	30.54	424
1999	129,185	15,177	19,742	135,280	31.14	4,344
2001	40,902	2,189	2,847	46,235	31.29	1,478
	4,476,001	2,156,054	2,804,488	2,566,712		89,341

FOUR CORNERS UNITS 1-3
INTERIM SURVIVOR CURVE.. IOWA 60-R2.5
PROBABLE RETIREMENT YEAR.. 6-2016
NET SALVAGE PERCENT.. -20

1963	1,214,806	1,084,870	847,038	610,729	12.26	49,815
1964	944,133	837,484	653,886	479,074	12.32	38,886
1966	718	628	490	372	12.45	30
1968	257	221	173	135	12.56	11
1969	358	305	238	192	12.61	15
1976	11,488	9,101	7,106	6,680	12.90	518
1978	8,390	6,470	5,052	5,016	12.96	387
1979	5,344	4,059	3,169	3,244	12.99	250
1980	1,968,217	1,470,967	1,148,493	1,213,367	13.02	93,193
1981	524,940	385,579	301,050	328,878	13.05	25,201
1982	1,391,195	1,002,662	782,852	886,582	13.08	67,781
1983	1,453,756	1,026,991	801,848	942,659	13.10	71,959
1984	18,865	13,042	10,183	12,455	13.12	949
1985	137,885	93,039	72,642	92,820	13.15	7,059
1986	4,766	3,134	2,447	3,272	13.17	248

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)

FOUR CORNERS UNITS 1-3
INTERIM SURVIVOR CURVE.. IOWA 60-R2.5
PROBABLE RETIREMENT YEAR.. 6-2016
NET SALVAGE PERCENT.. -20

1987	70,394	44,973	35,114	49,359	13.19	3,742
1988	222,610	137,787	107,580	159,552	13.21	12,078
1989	47,782	28,572	22,308	35,030	13.22	2,650
1990	97,673	56,131	43,826	73,382	13.24	5,542
1991	2,256	1,240	968	1,739	13.26	131
1992	593,211	310,368	242,327	469,526	13.27	35,383
1993	1,143,823	564,683	440,890	931,698	13.29	70,105
1994	450,262	207,913	162,333	377,981	13.30	28,420
1996	391,350	152,110	118,764	350,856	13.32	26,341
1997	1,215,175	420,256	328,125	1,130,085	13.34	84,714
1998	269,736	80,500	62,852	260,831	13.35	19,538
1999	1,157,992	284,588	222,199	1,167,391	13.36	87,380
2000	1,058,531	197,395	154,121	1,116,116	13.37	83,479
2001	1,533,755	183,498	143,270	1,697,236	13.37	126,944
2002	413,614	17,868	13,951	482,386	13.38	36,053
	16,353,282	8,626,434	6,735,295	12,888,643		978,802

FOUR CORNERS COMMON
INTERIM SURVIVOR CURVE.. IOWA 60-R2.5
PROBABLE RETIREMENT YEAR.. 6-2031
NET SALVAGE PERCENT.. -20

1963	2,592,174	1,905,870	3,017,288	93,321	21.64	4,312
2002	4,545	95	150	5,304	27.72	191
	2,596,719	1,905,965	3,017,438	98,625		4,503

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FOUR CORNERS UNITS 4-5						
INTERIM SURVIVOR CURVE.. IOWA 60-R2.5						
PROBABLE RETIREMENT YEAR.. 6-2031						
NET SALVAGE PERCENT.. -20						
1969	331,641	223,181	256,715	141,254	23.39	6,039
1970	952,784	630,895	725,690	417,651	23.64	17,667
1971	499,067	324,893	373,710	225,170	23.88	9,429
1972	406	260	299	188	24.11	8
1974	1,625	1,002	1,153	797	24.55	32
1976	929	550	633	482	24.94	19
1978	4,998	2,831	3,256	2,742	25.30	108
1979	2,103	1,163	1,338	1,186	25.47	47
1982	1,979,450	1,009,757	1,161,477	1,213,863	25.93	46,813
1983	37,923	18,758	21,576	23,932	26.07	918
1984	3,885,126	1,860,665	2,140,237	2,521,914	26.20	96,256
1985	54,030	24,994	28,749	36,087	26.32	1,371
1986	1,946	867	997	1,338	26.44	51
1987	2,540	1,085	1,248	1,800	26.56	68
1988	925	378	435	675	26.67	25
1989	758,990	295,551	339,959	570,829	26.77	21,323
1991	871	303	349	696	26.96	26
1992	119,397	38,842	44,678	98,598	27.05	3,645
1993	396,799	119,897	137,912	338,247	27.13	12,468
1994	14,191	3,935	4,526	12,503	27.21	460
2000	18,016	1,749	2,012	19,607	27.61	710
2002	119,449	2,494	2,869	140,470	27.72	5,067
	9,183,206	4,564,050	5,249,818	5,770,029		222,550

NAVAJO UNITS 1-3

INTERIM SURVIVOR CURVE.. IOWA 60-R2.5

PROBABLE RETIREMENT YEAR.. 6-2026

NET SALVAGE PERCENT.. -20

1974	3,712,216	2,469,663	2,979,206	1,475,453	21.05	70,093
1975	4,483,269	2,931,520	3,536,353	1,843,570	21.18	87,043
1976	5,753,279	3,694,986	4,457,338	2,446,597	21.30	114,864

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
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NAVAJO UNITS 1-3
INTERIM SURVIVOR CURVE.. IOWA 60-R2.5
PROBABLE RETIREMENT YEAR.. 6-2026
NET SALVAGE PERCENT.. -20

1977	13,487	8,498	10,251	5,933	21.42	277
1978	7,201	4,446	5,363	3,278	21.53	152
1979	5,926	3,583	4,322	2,789	21.63	129
1980	1,968	1,163	1,403	959	21.74	44
1983	250,882	137,192	165,498	135,560	22.01	6,159
1984	28,151	14,952	18,037	15,744	22.09	713
1985	344,308	177,084	213,620	199,550	22.17	9,001
1986	35,616	17,690	21,340	21,399	22.25	962
1987	6,929	3,313	3,997	4,318	22.32	193
1988	53,306	24,467	29,515	34,452	22.39	1,539
1990	26,359	11,004	13,274	18,357	22.51	816
1991	125,310	49,487	59,697	90,675	22.57	4,018
1992	178,776	66,355	80,045	134,486	22.62	5,945
1995	2,587	751	906	2,198	22.77	97
1997	2,032,799	462,502	557,926	1,881,433	22.86	82,302
1998	1,376,411	265,262	319,991	1,331,702	22.90	58,153
1999	1,773,583	275,402	332,223	1,796,077	22.94	78,295
2000	13,831	1,593	1,922	14,675	22.97	639

20,226,194	10,620,913	12,812,227	11,459,205		521,434
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OCOTILLO UNITS 1-2
INTERIM SURVIVOR CURVE.. IOWA 60-R2.5
PROBABLE RETIREMENT YEAR.. 6-2020
NET SALVAGE PERCENT.. -20

1960	1,774,504	1,522,099	1,951,050	178,355	14.89	11,978
1961	65,192	55,465	71,096	7,134	15.03	475
1963	4,097	3,428	4,394	522	15.28	34
1964	2,088	1,732	2,220	286	15.39	19
1971	3,997	3,088	3,958	838	16.06	52
1974	13,536	10,069	12,907	3,336	16.28	205
1981	23,456	15,495	19,862	8,285	16.68	497

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OCOTILLO UNITS 1-2						
INTERIM SURVIVOR CURVE.. IOWA 60-R2.5						
PROBABLE RETIREMENT YEAR.. 6-2020						
NET SALVAGE PERCENT.. -20						
1982	125,540	81,139	104,005	46,643	16.73	2,788
1985	13,186	7,897	10,123	5,700	16.85	338
1987	1,527	858	1,100	732	16.93	43
1990	75,240	37,533	48,110	42,178	17.02	2,478
1991	142,401	67,601	86,652	84,229	17.05	4,940
1998	99,138	24,269	31,108	87,858	17.21	5,105
2002	63,720	2,110	2,705	73,759	17.28	4,268
	2,407,622	1,832,783	2,349,290	539,855		33,220

SAGUARO UNITS 1-2						
INTERIM SURVIVOR CURVE.. IOWA 60-R2.5						
PROBABLE RETIREMENT YEAR.. 6-2014						
NET SALVAGE PERCENT.. -20						
1954	75,299	72,947	88,885	1,474	10.06	147
1955	845,666	815,797	994,039	20,760	10.13	2,049
1956	2,171	2,084	2,539	66	10.21	6
1957	1,578	1,508	1,837	57	10.28	6
1962	729	679	827	48	10.58	5
1964	118	109	133	9	10.67	1
1970	10,247	9,044	11,020	1,276	10.91	117
1971	873,223	764,419	931,435	116,433	10.94	10,643
1975	25,769	21,708	26,451	4,472	11.06	404
1978	13,566	11,031	13,441	2,838	11.13	255
1979	8,700	6,979	8,504	1,936	11.15	174
1982	17,332	13,271	16,171	4,627	11.20	413
1985	32,441	23,404	28,517	10,412	11.25	926
1987	146,641	100,637	122,625	53,344	11.28	4,729
1989	102,919	66,420	80,932	42,571	11.31	3,764
1990	60,903	37,923	46,209	26,875	11.32	2,374
1992	251,015	143,229	174,523	126,695	11.34	11,172
1994	39,190	19,912	24,263	22,765	11.36	2,004

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)

SAGUARO UNITS 1-2

INTERIM SURVIVOR CURVE.. IOWA 60-R2.5

PROBABLE RETIREMENT YEAR.. 6-2014

NET SALVAGE PERCENT.. -20

1999	62,594	17,449	21,261	53,852	11.40	4,724
2002	84,560	4,170	5,081	96,391	11.42	8,441
	2,654,661	2,132,720	2,598,693	586,901		52,354
	134,807,415	72,528,826	87,844,097	73,924,799		3,428,362

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 21.6 2.54

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CHOLLA UNIT 1						
INTERIM SURVIVOR CURVE.. IOWA 40-R2						
PROBABLE RETIREMENT YEAR.. 6-2017						
NET SALVAGE PERCENT.. -20						
1962	103,140	94,621	74,654	49,114	9.22	5,327
1964	68	61	48	34	9.71	4
1965	675	601	474	336	9.95	34
1966	475	419	331	239	10.18	23
1971	4,486	3,739	2,950	2,433	11.24	216
1972	2,180	1,794	1,415	1,201	11.43	105
1973	2,739	2,226	1,756	1,531	11.61	132
1974	15,571	12,489	9,853	8,832	11.78	750
1975	19,132	15,136	11,942	11,016	11.94	923
1976	15,254	11,894	9,384	8,921	12.10	737
1977	29,405	22,580	17,815	17,471	12.25	1,426
1978	41,171	31,115	24,549	24,856	12.39	2,006
1979	26,739	19,871	15,678	16,409	12.52	1,311
1980	17,688	12,909	10,185	11,041	12.65	873
1981	40,231	28,821	22,739	25,538	12.76	2,001
1982	2,368	1,663	1,312	1,530	12.87	119
1984	62,599	41,984	33,124	41,995	13.08	3,211
1985	170,253	111,325	87,833	116,471	13.17	8,844
1986	108,904	69,263	54,647	76,038	13.26	5,734
1987	171,968	106,152	83,751	122,611	13.34	9,191
1988	4,789	2,858	2,255	3,492	13.42	260
1991	79,578	41,989	33,128	62,366	13.62	4,579
1992	30,869	15,462	12,199	24,844	13.68	1,816
1996	1,040,553	383,589	302,642	946,022	13.89	68,108
1997	13,063	4,279	3,376	12,300	13.93	883
1998	37,703	10,650	8,403	36,841	13.97	2,637
2001	261,197	29,087	22,948	290,488	14.08	20,631
2002	12,391	489	386	14,483	14.11	1,026
	2,315,189	1,077,066	849,777	1,928,453		142,907

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CHOLLA UNIT 2						
INTERIM SURVIVOR CURVE.. IOWA 40-R2						
PROBABLE RETIREMENT YEAR.. 6-2033						
NET SALVAGE PERCENT.. -20						
1978	2,680,726	1,643,499	2,029,150	1,187,721	19.15	62,022
1981	7,397	4,123	5,090	3,786	20.66	183
1983	7,212	3,742	4,620	4,034	21.62	187
1984	71,489	35,679	44,051	41,736	22.08	1,890
1985	69,432	33,269	41,076	42,242	22.52	1,876
1986	801,518	367,608	453,869	507,953	22.95	22,133
1987	25,025	10,961	13,533	16,497	23.36	706
1988	117,297	48,857	60,321	80,435	23.76	3,385
1990	19,044	7,089	8,752	14,101	24.51	575
1993	15,768	4,732	5,842	13,080	25.51	513
1996	1,014,919	222,876	275,176	942,727	26.38	35,736
2001	8,774	505	623	9,906	27.55	360
2002	7,830	153	189	9,207	27.75	332
	4,846,431	2,383,093	2,942,292	2,873,425		129,898

CHOLLA UNIT 3
INTERIM SURVIVOR CURVE.. IOWA 40-R2
PROBABLE RETIREMENT YEAR.. 6-2035
NET SALVAGE PERCENT.. -20

1980	2,156,144	1,227,191	1,510,406	1,076,967	20.58	52,331
1981	7,397	4,067	5,006	3,870	21.12	183
1983	175,433	89,534	110,197	100,323	22.17	4,525
1984	123,863	60,733	74,749	73,887	22.68	3,258
1985	10,346	4,863	5,985	6,430	23.17	278
1987	24,592	10,523	12,952	16,558	24.12	686
1988	435,641	177,010	217,860	304,909	24.57	12,410
1993	15,767	4,577	5,633	13,287	26.57	500
1996	1,045,671	220,846	271,814	982,991	27.58	35,641
2001	8,776	482	593	9,938	28.96	343
2002	134,901	2,509	3,088	158,793	29.19	5,440
	4,138,531	1,802,335	2,218,283	2,747,953		115,595

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CHOLLA COMMON						
INTERIM SURVIVOR CURVE.. IOWA 40-R2						
PROBABLE RETIREMENT YEAR.. 6-2035						
NET SALVAGE PERCENT.. -20						
1978	819,188	497,411	567,227	415,799	19.48	21,345
1979	51,856	30,510	34,792	27,435	20.03	1,370
1980	39,642	22,563	25,730	21,840	20.58	1,061
1981	277,926	152,815	174,264	159,247	21.12	7,540
1982	103,137	54,691	62,367	61,397	21.65	2,836
1983	563,360	287,516	327,871	348,161	22.17	15,704
1984	101,024	49,534	56,487	64,742	22.68	2,855
1985	309,053	145,267	165,657	205,207	23.17	8,857
1986	138,523	62,219	70,952	95,276	23.65	4,029
1987	452,905	193,807	221,009	322,477	24.12	13,370
1988	109,043	44,306	50,525	80,327	24.57	3,269
1989	336,303	129,342	147,496	256,068	25.00	10,243
1990	397,203	143,708	163,879	312,765	25.42	12,304
1992	45,783	14,427	16,452	38,488	26.20	1,469
1993	11,473	3,330	3,797	9,971	26.57	375
1994	83,410	22,100	25,202	74,890	26.92	2,782
1996	158,332	33,440	38,134	151,864	27.58	5,506
1997	420,178	76,640	87,397	416,817	27.89	14,945
1998	1,315,246	201,390	229,657	1,348,638	28.17	47,875
2000	239,565	21,417	24,423	263,055	28.71	9,162
2001	58,547	3,218	3,670	66,586	28.96	2,299
2002	1,064,372	19,797	22,575	1,254,671	29.19	42,983
	7,096,069	2,209,448	2,519,563	5,995,721		232,179

FOUR CORNERS UNITS 1-3
INTERIM SURVIVOR CURVE.. IOWA 40-R2
PROBABLE RETIREMENT YEAR.. 6-2016
NET SALVAGE PERCENT.. -20

1977	4,577	3,592	2,390	3,102	11.58	268
1983	50,000	35,292	23,481	36,519	12.21	2,991
1986	10,083	6,616	4,402	7,698	12.45	618

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FOUR CORNERS UNITS 1-3						
INTERIM SURVIVOR CURVE.. IOWA 40-R2						
PROBABLE RETIREMENT YEAR.. 6-2016						
NET SALVAGE PERCENT.. -20						
1987	23,445	14,942	9,941	18,193	12.52	1,453
1988	471,033	290,929	193,565	371,675	12.58	29,545
1990	82,901	47,512	31,611	67,870	12.70	5,344
1991	142,326	77,983	51,885	118,906	12.76	9,319
1996	380,814	147,375	98,054	358,923	12.98	27,652
1998	31,346	9,340	6,214	31,401	13.05	2,406
1999	180,970	44,367	29,519	187,645	13.09	14,335
2000	147,036	27,278	18,149	158,294	13.12	12,065
2001	159,610	18,904	12,578	178,954	13.15	13,609
2002	2,646,471	114,010	75,855	3,099,910	13.17	235,377
	4,330,612	838,140	557,644	4,639,090		354,982

FOUR CORNERS COMMON

INTERIM SURVIVOR CURVE.. IOWA 40-R2

PROBABLE RETIREMENT YEAR.. 6-2031

NET SALVAGE PERCENT.. -20

1963	109,643	94,455	105,296	26,276	11.28	2,329
1967	641	514	573	196	13.22	15
1968	13	10	11	5	13.72	
1969	255	197	220	86	14.23	6
1972	7,042	5,090	5,674	2,776	15.76	176
1973	30,083	21,255	23,695	12,405	16.26	763
1974	23,943	16,512	18,407	10,325	16.77	616
1975	24,485	16,472	18,363	11,019	17.27	638
1976	15,509	10,169	11,336	7,275	17.76	410
1977	186,566	119,059	132,724	91,155	18.25	4,995
1978	37,055	22,993	25,632	18,834	18.73	1,006
1979	493,095	297,218	331,331	260,383	19.20	13,562
1980	228,080	133,454	148,771	124,925	19.65	6,358
1981	131,753	74,672	83,242	74,862	20.10	3,724
1982	218,178	119,623	133,353	128,461	20.93	6,257

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
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FOUR CORNERS COMMON
INTERIM SURVIVOR CURVE.. IOWA 40-R2
PROBABLE RETIREMENT YEAR.. 6-2031
NET SALVAGE PERCENT.. -20

1983	170,217	90,120	100,464	103,796	20.95	4,954
1984	624,964	318,732	355,314	394,643	21.36	18,476
1985	141,607	69,467	77,440	92,488	21.75	4,252
1986	160,370	75,457	84,118	108,326	22.12	4,897
1987	76,287	34,311	38,249	53,295	22.49	2,370
1988	371,367	159,272	177,552	268,088	22.83	11,743
1989	56,552	23,019	25,661	42,201	23.16	1,822
1990	610,102	234,572	261,495	470,627	23.48	20,044
1991	1,178,136	425,543	474,385	939,378	23.78	39,503
1992	152,094	51,250	57,132	125,381	24.07	5,209
1993	92,185	28,762	32,063	78,559	24.34	3,228
1994	2,086,383	596,372	664,821	1,838,839	24.60	74,750
1995	28,866	7,461	8,317	26,322	24.84	1,060
1996	166,588	38,282	42,676	157,230	25.08	6,269
1997	40,210	8,029	8,951	39,301	25.30	1,553
1998	123,797	20,738	23,118	125,438	25.51	4,917
1999	168,387	22,631	25,229	176,835	25.70	6,881
2000	39,878	3,934	4,385	43,469	25.89	1,679
2001	200,054	12,243	13,648	226,417	26.07	8,685
2002	138,839	2,932	3,269	163,338	26.23	6,227
	8,133,224	3,154,820	3,516,915	6,242,954		269,374

FOUR CORNERS UNITS 4-5
INTERIM SURVIVOR CURVE.. IOWA 40-R2
PROBABLE RETIREMENT YEAR.. 6-2031
NET SALVAGE PERCENT.. -20

1963	1,238	1,067	1,260	226	11.28	20
1968	320	252	298	86	13.72	6
1969	745	575	679	215	14.23	15
1970	351,515	265,534	313,581	108,237	14.74	7,343
1971	25,649	18,960	22,391	8,388	15.25	550

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FOUR CORNERS UNITS 4-5						
INTERIM SURVIVOR CURVE.. IOWA 40-R2						
PROBABLE RETIREMENT YEAR.. 6-2031						
NET SALVAGE PERCENT.. -20						
1972	8,519	6,157	7,271	2,952	15.76	187
1973	7,039	4,973	5,873	2,574	16.26	158
1974	54,917	37,873	44,726	21,174	16.77	1,263
1975	22,348	15,034	17,754	9,064	17.27	525
1976	47,511	31,152	36,789	20,224	17.76	1,139
1977	36,015	22,983	27,142	16,076	18.25	881
1978	26,933	16,712	19,736	12,584	18.73	672
1979	64,222	38,710	45,714	31,352	19.20	1,633
1980	89,734	52,505	62,006	45,675	19.65	2,324
1981	33,676	19,086	22,540	17,871	20.10	889
1982	43,459	23,828	28,140	24,011	20.53	1,170
1983	131,654	69,703	82,315	75,670	20.95	3,612
1984	328,615	167,594	197,919	196,419	21.36	9,196
1985	202,315	99,248	117,206	125,572	21.75	5,773
1986	170,955	80,438	94,993	110,153	22.12	4,980
1987	62,602	28,156	33,251	41,871	22.49	1,862
1988	237,068	101,674	120,071	164,411	22.83	7,202
1989	32,558	13,252	15,650	23,420	23.16	1,011
1990	6,232	2,396	2,830	4,648	23.48	198
1991	51,515	18,607	21,974	39,844	23.78	1,676
1992	58,711	19,783	23,362	47,091	24.07	1,956
1993	71,187	22,210	26,229	59,195	24.34	2,432
1994	190,028	54,318	64,146	163,888	24.60	6,662
1996	11,745	2,699	3,187	10,907	25.08	435
1998	22,499	3,769	4,451	22,548	25.51	884
1999	21,022	2,825	3,336	21,890	25.70	852
2000	64,955	6,407	7,566	70,380	25.89	2,718
2001	105,415	6,451	7,619	118,879	26.07	4,560
2002	721,424	15,236	17,993	847,716	26.23	32,319
	3,304,340	1,270,167	1,499,998	2,465,211		107,103

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NAVAJO UNITS 1-3						
INTERIM SURVIVOR CURVE.. IOWA 40-R2						
PROBABLE RETIREMENT YEAR.. 6-2026						
NET SALVAGE PERCENT.. -20						
1974	576,505	410,448	447,155	244,651	15.69	15,593
1975	825,683	575,369	626,825	363,995	16.08	22,637
1976	874,179	595,945	649,241	399,774	16.45	24,302
1977	121,651	81,020	88,266	57,715	16.82	3,431
1978	105,586	68,673	74,815	51,888	17.17	3,022
1979	214,004	135,696	147,831	108,974	17.52	6,220
1980	350,828	216,728	236,110	184,884	17.85	10,358
1981	297,688	178,970	194,976	162,250	18.16	8,934
1982	116,109	67,784	73,846	65,485	18.47	3,545
1983	187,980	106,472	115,994	109,582	18.76	5,841
1984	194,651	106,700	116,242	117,339	19.04	6,163
1985	259,944	137,687	150,001	161,932	19.30	8,390
1986	373,496	190,617	207,664	240,531	19.55	12,303
1987	30,906	15,158	16,514	20,573	19.79	1,040
1990	1,182,487	502,888	547,862	871,122	20.44	42,618
1991	136,403	54,769	59,667	104,017	20.64	5,040
1992	131,625	49,596	54,031	103,919	20.82	4,991
1993	171,551	60,132	65,510	140,351	20.99	6,687
1994	137,483	44,413	48,385	116,595	21.15	5,513
1995	115,666	33,950	36,986	101,813	21.31	4,778
1996	44,120	11,600	12,637	40,307	21.45	1,879
1997	3,986,310	915,576	997,458	3,786,114	21.59	175,364
1998	304,842	59,261	64,561	301,249	21.72	13,870
1999	397,589	62,310	67,882	409,225	21.84	18,737
2000	555,475	64,457	70,222	596,348	21.96	27,156
2001	92,062	6,640	7,233	103,241	22.07	4,678
2002	20,427	510	556	23,956	22.17	1,081
	11,805,250	4,753,369	5,178,470	8,987,830		444,171

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OCOTILLO UNITS 1-2						
INTERIM SURVIVOR CURVE.. IOWA 40-R2						
PROBABLE RETIREMENT YEAR.. 6-2020						
NET SALVAGE PERCENT.. -20						
1960	163,799	150,485	133,747	62,812	9.31	6,747
1962	2,034	1,827	1,624	817	9.95	82
1963	96	85	76	39	10.27	4
1966	7,844	6,709	5,963	3,450	11.20	308
1967	3,344	2,823	2,509	1,504	11.50	131
1968	822	685	609	377	11.79	32
1969	2,949	2,424	2,154	1,385	12.08	115
1970	2,586	2,096	1,863	1,240	12.36	100
1971	4,080	3,260	2,897	1,999	12.63	158
1972	2,356	1,855	1,649	1,178	12.89	91
1973	6,146	4,764	4,234	3,141	13.15	239
1974	3,950	3,015	2,680	2,060	13.39	154
1975	1,869	1,403	1,247	996	13.63	73
1976	6,146	4,536	4,031	3,344	13.85	241
1977	64,759	46,937	41,716	35,995	14.07	2,558
1978	7,773	5,530	4,915	4,413	14.27	309
1979	12,760	8,904	7,914	7,398	14.46	512
1980	6,238	4,262	3,788	3,698	14.65	252
1981	46,452	31,060	27,605	28,137	14.82	1,899
1982	22,245	14,527	12,911	13,783	14.99	919
1983	152,131	96,901	86,123	96,434	15.15	6,365
1984	8,256	5,119	4,550	5,357	15.30	350
1985	163,746	98,700	87,722	108,773	15.44	7,045
1986	118,695	69,365	61,650	80,784	15.57	5,188
1987	192	108	96	134	15.69	9
1988	168,425	91,697	81,498	120,612	15.81	7,629
1990	8,646	4,324	3,843	6,532	16.02	408
1991	127,308	60,543	53,809	98,961	16.12	6,139
1993	2,425	1,022	908	2,002	16.30	123
1995	909,880	326,465	290,155	801,701	16.46	48,706
1996	74,482	24,123	21,440	67,938	16.53	4,110
1997	54,733	15,645	13,905	51,775	16.60	3,119
2000	132,221	19,706	17,514	141,151	16.78	8,412

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OCOTILLO UNITS 1-2						
INTERIM SURVIVOR CURVE.. IOWA 40-R2						
PROBABLE RETIREMENT YEAR.. 6-2020						
NET SALVAGE PERCENT.. -20						
2001	337,622	31,926	28,375	376,771	16.83	22,387
2002	1,084,182	35,908	31,914	1,269,104	16.88	75,184
	3,711,192	1,178,739	1,047,634	3,405,795		210,098

SAGUARO UNITS 1-2
INTERIM SURVIVOR CURVE.. IOWA 40-R2
PROBABLE RETIREMENT YEAR.. 6-2014
NET SALVAGE PERCENT.. -20

1954	124,955	124,980	104,265	45,681	6.61	6,911
1955	84,213	83,694	69,822	31,234	6.81	4,586
1957	92	90	75	35	7.21	5
1958	4,596	4,477	3,735	1,780	7.40	241
1959	544	526	439	214	7.59	28
1960	1,191	1,144	954	475	7.78	61
1961	2,314	2,207	1,841	936	7.96	118
1966	2,322	2,132	1,779	1,007	8.81	114
1967	122	111	93	53	8.96	6
1968	267	241	201	119	9.11	13
1969	410	367	306	186	9.25	20
1970	2,429	2,155	1,798	1,117	9.38	119
1971	54,268	47,689	39,785	25,337	9.51	2,664
1972	2,171	1,889	1,576	1,029	9.63	107
1973	3,294	2,837	2,367	1,586	9.75	163
1974	6,015	5,126	4,276	2,942	9.86	298
1975	1,093	921	768	544	9.96	55
1976	3,350	2,790	2,328	1,692	10.06	168
1977	23,174	19,068	15,907	11,902	10.15	1,173
1978	65,044	52,811	44,058	33,995	10.24	3,320
1979	13,984	11,198	9,342	7,439	10.32	721
1980	7,462	5,886	4,910	4,044	10.40	389
1981	14,509	11,263	9,396	8,015	10.47	766

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SAGUARO UNITS 1-2						
INTERIM SURVIVOR CURVE.. IOWA 40-R2						
PROBABLE RETIREMENT YEAR.. 6-2014						
NET SALVAGE PERCENT.. -20						
1982	4,297	3,278	2,735	2,421	10.54	230
1983	151,453	113,444	94,641	87,103	10.60	8,217
1984	8,679	6,373	5,317	5,098	10.66	478
1985	37,761	27,120	22,625	22,688	10.72	2,116
1986	58,846	41,275	34,434	36,181	10.77	3,359
1987	14,454	9,874	8,237	9,108	10.82	842
1988	5,001	3,320	2,770	3,231	10.86	298
1990	96,095	59,537	49,669	65,645	10.95	5,995
1991	19,774	11,772	9,821	13,908	10.98	1,267
1992	2,659	1,510	1,260	1,931	11.02	175
1995	558,740	262,764	219,210	451,278	11.11	40,619
1996	30,262	13,011	10,854	25,460	11.14	2,285
1997	34,856	13,427	11,201	30,626	11.17	2,742
2000	354,105	75,297	62,817	362,109	11.24	32,216
2001	1,363,082	186,633	155,699	1,479,999	11.26	131,439
2002	33,141	1,623	1,354	38,415	11.28	3,406
	3,191,024	1,213,860	1,012,665	2,816,563		257,730

YUCCA UNIT 1

INTERIM SURVIVOR CURVE.. IOWA 40-R2

PROBABLE RETIREMENT YEAR.. 12-2016

NET SALVAGE PERCENT.. -20

1959	95,432	90,332	97,873	16,645	8.34	1,996
1963	5,800	5,296	5,738	1,222	9.30	131
1964	866	783	848	191	9.53	20
1965	1,257	1,126	1,220	288	9.76	30
1966	93	82	89	23	9.98	2
1968	309	268	290	81	10.40	8
1969	683	587	636	184	10.60	17
1971	536	450	488	155	10.97	14
1972	1,849	1,535	1,663	556	11.15	50

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
YUCCA UNIT 1						
INTERIM SURVIVOR CURVE.. IOWA 40-R2						
PROBABLE RETIREMENT YEAR.. 12-2016						
NET SALVAGE PERCENT.. -20						
1973	3,478	2,852	3,090	1,084	11.32	96
1974	6,999	5,667	6,140	2,259	11.48	197
1975	4,271	3,412	3,697	1,428	11.63	123
1976	3,768	2,968	3,216	1,306	11.78	111
1977	9,906	7,689	8,331	3,556	11.92	298
1978	18,756	14,333	15,530	6,977	12.05	579
1979	15,482	11,641	12,613	5,965	12.17	490
1980	3,504	2,589	2,805	1,400	12.29	114
1981	2,787	2,021	2,190	1,154	12.40	93
1982	12,047	8,567	9,282	5,174	12.50	414
1983	38,024	26,465	28,674	16,955	12.60	1,346
1984	4,766	3,242	3,513	2,206	12.69	174
1985	21,118	14,019	15,189	10,153	12.77	795
1986	113,756	73,495	79,631	56,876	12.85	4,426
1987	46,664	29,258	31,700	24,297	12.93	1,879
1988	2,200	1,336	1,448	1,192	13.00	92
1989	1,017	595	645	575	13.07	44
1990	1,684	948	1,027	994	13.13	76
1991	4,637	2,493	2,701	2,863	13.19	217
1996	31,179	11,789	12,773	24,642	13.43	1,835
	452,868	325,838	353,040	190,401		15,667
	53,324,730	20,206,875	21,696,281	42,293,396		2,279,704

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 18.6 4.28

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 321 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PALO VERDE UNIT 1						
INTERIM SURVIVOR CURVE.. IOWA 65-R2.5						
PROBABLE RETIREMENT YEAR.. 12-2024						
NET SALVAGE PERCENT.. 0						
1986	149,653,048	64,141,296	66,715,270	82,937,778	21.12	3,926,978
1987	437,213	180,613	187,861	249,352	21.17	11,779
1988	27,350	10,852	11,287	16,063	21.22	757
1990	2,326,632	842,008	875,798	1,450,834	21.30	68,114
1991	55,626	19,069	19,834	35,792	21.34	1,677
1992	113,422	36,556	38,023	75,399	21.38	3,527
1993	418	126	131	287	21.41	13
1994	36,451	10,148	10,555	25,896	21.44	1,208
1995	120,368	30,525	31,750	88,618	21.48	4,126
1997	104,011	20,761	21,594	82,417	21.53	3,828
1998	131,680	22,320	23,216	108,464	21.56	5,031
1999	840,805	114,938	119,550	721,255	21.59	33,407
2001	93,544	5,949	6,188	87,356	21.63	4,039
2002	7,098,864	156,885	163,181	6,935,683	21.66	320,207
	161,039,432	65,592,046	68,224,238	92,815,194		4,384,691

PALO VERDE UNIT 2
INTERIM SURVIVOR CURVE.. IOWA 65-R2.5
PROBABLE RETIREMENT YEAR.. 12-2025
NET SALVAGE PERCENT.. 0

1986	84,958,776	35,504,272	35,906,605	49,052,171	22.02	2,227,619
1988	343,345	132,772	134,277	209,068	22.12	9,452
1989	127,449	47,131	47,665	79,784	22.17	3,599
1990	2,447,678	861,093	870,851	1,576,827	22.22	70,964
1991	56,178	18,713	18,925	37,253	22.26	1,674
1992	42,543	13,324	13,475	29,068	22.30	1,303
1994	9,603	2,586	2,615	6,988	22.38	312
1995	84,303	20,713	20,948	63,355	22.41	2,827
1996	173	38	38	135	22.45	6
1997	52,488	10,104	10,219	42,269	22.48	1,880
1998	17,439	2,846	2,878	14,561	22.51	647

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 321 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
PALO VERDE UNIT 2						
INTERIM SURVIVOR CURVE.. IOWA 65-R2.5						
PROBABLE RETIREMENT YEAR.. 12-2025						
NET SALVAGE PERCENT.. 0						
1999	86,402	11,379	11,508	74,894	22.54	3,323
2000	188,893	18,512	18,722	170,171	22.56	7,543
	88,415,270	36,643,483	37,058,726	51,356,544		2,331,149

PALO VERDE UNIT 3						
INTERIM SURVIVOR CURVE.. IOWA 65-R2.5						
PROBABLE RETIREMENT YEAR.. 3-2027						
NET SALVAGE PERCENT.. 0						
1988	156,500,247	58,640,643	61,090,299	95,409,948	23.25	4,103,654
1989	539,858	193,107	201,174	338,684	23.31	14,530
1990	1,532,499	521,203	542,976	989,523	23.36	42,360
1992	79,634	24,073	25,079	54,555	23.45	2,326
1994	174,636	45,283	47,174	127,462	23.54	5,415
1995	46,564	10,984	11,443	35,121	23.58	1,489
1996	113,380	23,935	24,935	88,445	23.62	3,744
1997	70,281	12,988	13,531	56,750	23.65	2,400
1998	38,093	5,954	6,203	31,890	23.69	1,346
1999	280,002	35,280	36,753	243,249	23.72	10,255
2000	215,883	20,185	21,028	194,855	23.75	8,204
	159,591,077	59,533,635	62,020,595	97,570,482		4,195,723

PALO VERDE WATER RECLAMATION						
INTERIM SURVIVOR CURVE.. IOWA 65-R2.5						
PROBABLE RETIREMENT YEAR.. 3-2027						
NET SALVAGE PERCENT.. 0						
1986	112,612,255	45,686,792	48,119,892	64,492,363	23.13	2,788,256
1987	39,514	15,430	16,252	23,262	23.19	1,003
1988	23,430	8,779	9,247	14,183	23.25	610
1989	152,953	54,711	57,625	95,328	23.31	4,090

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 321 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
PALO VERDE WATER RECLAMATION						
INTERIM SURVIVOR CURVE.. IOWA 65-R2.5						
PROBABLE RETIREMENT YEAR.. 3-2027						
NET SALVAGE PERCENT.. 0						
1990	242,233	82,383	86,770	155,463	23.36	6,655
1991	1,110,992	357,295	376,323	734,669	23.41	31,383
1992	711,432	215,066	226,520	484,912	23.45	20,679
1993	118,533	33,343	35,119	83,414	23.50	3,550
1994	209,987	54,450	57,350	152,637	23.54	6,484
1995	60,561	14,286	15,047	45,514	23.58	1,930
1996	2,139,083	451,560	475,608	1,663,475	23.62	70,427
1997	4,900,953	905,696	953,929	3,947,024	23.65	166,893
1998	620,987	97,060	102,229	518,758	23.69	21,898
1999	111,434	14,041	14,789	96,645	23.72	4,074
2000	2,207,873	206,436	217,430	1,990,443	23.75	83,808
2001	105,064	6,115	6,440	98,624	23.78	4,147
2002	226,629	4,578	4,822	221,807	23.81	9,316
	125,593,913	48,208,021	50,775,392	74,818,521		3,225,203

PALO VERDE COMMON

INTERIM SURVIVOR CURVE.. IOWA 65-R2.5

PROBABLE RETIREMENT YEAR.. 3-2027

NET SALVAGE PERCENT.. 0

1986	72,253,263	29,313,149	30,079,922	42,173,341	23.13	1,823,318
1987	33,785	13,193	13,538	20,247	23.19	873
1988	188,104	70,483	72,327	115,777	23.25	4,980
1989	625,898	223,884	229,740	396,158	23.31	16,995
1990	4,146,844	1,410,342	1,447,234	2,699,610	23.36	115,565
1991	9,797,716	3,150,945	3,233,367	6,564,349	23.41	280,408
1992	6,249,889	1,889,341	1,938,762	4,311,127	23.45	183,843
1993	991,829	279,001	286,299	705,530	23.50	30,023
1994	99,578	25,821	26,496	73,082	23.54	3,105
1995	1,334,866	314,895	323,132	1,011,734	23.58	42,906
1996	1,376,971	290,679	298,283	1,078,688	23.62	45,668
1997	441,761	81,637	83,773	357,988	23.65	15,137

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 321 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)

PALO VERDE COMMON
INTERIM SURVIVOR CURVE.. IOWA 65-R2.5
PROBABLE RETIREMENT YEAR.. 3-2027
NET SALVAGE PERCENT.. 0

2002	586,805	11,853	12,163	574,642	23.81	24,134
	98,127,309	37,075,223	38,045,036	60,082,273		2,586,955
	632,767,001	247,052,408	256,123,987	376,643,014		16,723,721

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 22.5 2.64

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 322 REACTOR PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
PALO VERDE UNIT 1						
INTERIM SURVIVOR CURVE.. IOWA 70-R1						
PROBABLE RETIREMENT YEAR.. 12-2024						
NET SALVAGE PERCENT.. -2						
1986	337,017,608	142,040,789	139,384,688	204,373,272	20.59	9,925,851
1987	347,898	141,410	138,766	216,090	20.62	10,480
1988	2,603,683	1,017,952	998,917	1,656,840	20.64	80,273
1989	725,034	271,187	266,116	473,419	20.67	22,904
1990	114,833	40,937	40,171	76,959	20.70	3,718
1991	422,515	142,822	140,151	290,814	20.72	14,035
1992	5,165,616	1,642,852	1,612,131	3,656,797	20.75	176,231
1993	1,074,088	318,920	312,956	782,614	20.77	37,680
1994	176,476	48,457	47,551	132,455	20.79	6,371
1995	3,173,846	794,439	779,584	2,457,739	20.82	118,047
1996	1,820,871	409,346	401,691	1,455,597	20.84	69,846
1997	961,248	189,525	185,981	794,492	20.86	38,087
1998	2,222,601	372,930	365,957	1,901,096	20.88	91,049
1999	1,376,598	186,328	182,844	1,221,286	20.91	58,407
2000	52,413	5,271	5,172	48,289	20.93	2,307
2001	1,995,659	125,798	123,446	1,912,126	20.95	91,271
2002	294,226	6,452	6,331	293,780	20.97	14,010

359,545,213 147,755,415 144,992,453 221,743,665 10,760,567

PALO VERDE UNIT 2

INTERIM SURVIVOR CURVE.. IOWA 70-R1

PROBABLE RETIREMENT YEAR.. 12-2025

NET SALVAGE PERCENT.. -2

1986	158,222,101	64,925,806	59,898,557	101,487,986	21.45	4,731,375
1987	4,271,766	1,690,158	1,559,288	2,797,913	21.48	130,257
1988	1,534,235	582,933	537,796	1,027,124	21.51	47,751
1989	47,788	17,372	16,027	32,717	21.54	1,519
1992	1,464,136	451,610	416,642	1,076,777	21.62	49,805
1993	3,473,251	998,692	921,362	2,621,354	21.65	121,079
1994	73,166	19,433	17,928	56,701	21.67	2,617
1995	1,830,784	443,134	408,822	1,458,578	21.70	67,216

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 322 REACTOR PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
PALO VERDE UNIT 2						
INTERIM SURVIVOR CURVE.. IOWA 70-R1						
PROBABLE RETIREMENT YEAR.. 12-2025						
NET SALVAGE PERCENT.. -2						
1996	728,366	158,096	145,855	597,078	21.72	27,490
1997	1,293,240	245,749	226,720	1,092,385	21.75	50,225
1998	55,235	8,913	8,223	48,117	21.77	2,210
1999	971,787	126,579	116,778	874,445	21.80	40,112
2000	595,176	57,673	53,207	553,873	21.82	25,384
2001	1,253,560	75,439	69,598	1,209,033	21.85	55,333
2002	547,644	11,507	10,616	547,981	21.87	25,056
	176,362,235	69,813,094	64,407,419	115,482,062		5,377,429

PALO VERDE UNIT 3
INTERIM SURVIVOR CURVE.. IOWA 70-R1
PROBABLE RETIREMENT YEAR.. 3-2027
NET SALVAGE PERCENT.. -2

1987	4,674	1,789	1,817	2,950	22.55	131
1988	309,856,435	113,842,494	115,599,818	200,453,746	22.58	8,877,491
1989	280,188	98,312	99,830	185,962	22.62	8,221
1991	2,509,333	792,427	804,659	1,754,861	22.68	77,375
1992	1,163,256	345,278	350,608	835,913	22.71	36,808
1993	251,665	69,540	70,613	186,085	22.74	8,183
1994	1,146,768	292,426	296,940	872,763	22.77	38,330
1995	2,309,500	536,391	544,671	1,811,019	22.79	79,466
1996	632,735	131,530	133,560	511,830	22.82	22,429
1997	758,552	138,032	140,163	633,560	22.85	27,727
1998	610,828	94,080	95,532	527,513	22.88	23,056
1999	388,108	48,098	48,840	347,030	22.91	15,148
2000	1,145,667	105,640	107,271	1,061,309	22.93	46,285
2001	1,692,991	97,222	98,723	1,628,128	22.96	70,911
	322,750,700	116,593,259	118,393,045	210,812,669		9,331,561

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 322 REACTOR PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)

PALO VERDE WATER RECLAMATION
INTERIM SURVIVOR CURVE.. IOWA 70-R1
PROBABLE RETIREMENT YEAR.. 3-2027
NET SALVAGE PERCENT.. -2

2001	118,569	6,809	5,120	115,820	22.96	5,044
2002	4,744	93	70	4,769	22.99	207
	123,313	6,902	5,190	120,589		5,251

PALO VERDE COMMON
INTERIM SURVIVOR CURVE.. IOWA 70-R1
PROBABLE RETIREMENT YEAR.. 3-2027
NET SALVAGE PERCENT.. -2

1986	15,154,553	6,019,207	6,381,612	9,076,032	22.52	403,021
1987	17,897	6,849	7,261	10,994	22.55	488
1988	70,222	25,800	27,353	44,273	22.58	1,961
1989	92,417	32,427	34,379	59,886	22.62	2,647
1991	2,950	932	988	2,021	22.68	89
1992	9,517,452	2,824,970	2,995,058	6,712,743	22.71	295,585
1994	782,562	199,553	211,568	586,645	22.77	25,764
1995	142,435	33,081	35,073	110,211	22.79	4,836
1996	187,203	38,915	41,258	149,689	22.82	6,560
1997	27,499	5,004	5,305	22,744	22.85	995
1998	110,417	17,006	18,030	94,595	22.88	4,134
2000	39,884	3,678	3,899	36,783	22.93	1,604
2001	115,940	6,658	7,059	111,200	22.96	4,843
2002	188,442	3,690	3,912	188,299	22.99	8,190

26,449,873	9,217,770	9,772,755	17,206,115	760,717
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885,231,334	343,386,440	337,570,862	565,365,100	26,235,525
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COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT..	21.5	2.96
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ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 322.1 REACTOR PLANT EQUIPMENT - STEAM GENERATORS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PALO VERDE UNIT 1						
INTERIM SURVIVOR CURVE.. SQUARE						
PROBABLE RETIREMENT YEAR.. 12-2005						
NET SALVAGE PERCENT.. -17						
1986	30,722,375	30,416,810	31,766,117	4,179,062	3.00	1,393,021
PALO VERDE UNIT 2						
INTERIM SURVIVOR CURVE.. SQUARE						
PROBABLE RETIREMENT YEAR.. 12-2003						
NET SALVAGE PERCENT.. -17						
1986	15,870,053	17,507,731	17,917,124	650,838	1.00	650,838
PALO VERDE UNIT 3						
INTERIM SURVIVOR CURVE.. SQUARE						
PROBABLE RETIREMENT YEAR.. 12-2007						
NET SALVAGE PERCENT.. -17						
1988	25,413,317	22,109,891	23,597,351	6,136,230	5.00	1,227,246
	72,005,745	70,034,432	73,280,592	10,966,130		3,271,105
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT..					3.4	4.54

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 323 TURBOGENERATOR UNITS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PALO VERDE UNIT 1						
INTERIM SURVIVOR CURVE.. IOWA 60-S0						
PROBABLE RETIREMENT YEAR.. 12-2024						
NET SALVAGE PERCENT.. -2						
1986	109,830,205	47,824,245	49,102,998	62,923,811	19.88	3,165,182
1988	119,647	48,401	49,695	72,345	20.02	3,614
1989	408,614	158,504	162,742	254,044	20.09	12,645
1990	341,416	126,448	129,829	218,415	20.15	10,839
1991	528,989	185,935	190,907	348,662	20.22	17,243
1992	557,394	184,776	189,717	378,825	20.29	18,671
1993	966,105	299,471	307,478	677,949	20.36	33,298
1994	116,115	33,328	34,219	84,218	20.43	4,122
1995	317,152	83,203	85,428	238,067	20.51	11,607
1996	485,813	114,566	117,629	377,900	20.58	18,362
1997	796,815	165,151	169,567	643,184	20.66	31,132
1998	144,976	25,582	26,266	121,610	20.74	5,864
1999	1,838,817	263,333	270,375	1,605,218	20.82	77,100
2000	596,040	63,775	65,480	542,481	20.90	25,956
2001	200,619	13,485	13,846	190,785	20.99	9,089
2002	559,361	12,951	13,297	557,251	21.09	26,423
	117,808,078	49,603,154	50,929,473	69,234,765		3,471,147

PALO VERDE UNIT 2
INTERIM SURVIVOR CURVE.. IOWA 60-S0
PROBABLE RETIREMENT YEAR.. 12-2025
NET SALVAGE PERCENT.. -2

1986	69,976,447	29,720,956	28,954,748	42,421,228	20.67	2,052,309
1988	11,560	4,558	4,440	7,351	20.82	353
1989	152,854	57,749	56,260	99,651	20.89	4,770
1990	54,999	19,831	19,320	36,779	20.96	1,755
1991	661,134	225,909	220,085	454,272	21.04	21,591
1992	409,638	131,909	128,508	289,323	21.11	13,705
1993	787,496	237,038	230,927	572,319	21.19	27,009
1994	1,072,397	298,401	290,709	803,136	21.27	37,759
1995	305,126	77,496	75,498	235,731	21.35	11,041

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 323 TURBOGENERATOR UNITS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)

PALO VERDE UNIT 2
INTERIM SURVIVOR CURVE.. IOWA 60-S0
PROBABLE RETIREMENT YEAR.. 12-2025
NET SALVAGE PERCENT.. -2

1996	122,239	27,904	27,185	97,499	21.43	4,550
1997	845,986	169,561	165,190	697,716	21.51	32,437
1999	1,149,381	158,973	154,875	1,017,494	21.68	46,932
2000	346,144	35,730	34,809	318,258	21.77	14,619
2001	224,777	14,536	14,161	215,112	21.87	9,836
2002	634,046	14,422	14,050	632,677	21.97	28,797
	76,754,224	31,194,973	30,390,765	47,898,546		2,307,463

PALO VERDE UNIT 3
INTERIM SURVIVOR CURVE.. IOWA 60-S0
PROBABLE RETIREMENT YEAR.. 3-2027
NET SALVAGE PERCENT.. -2

1988	137,174,935	52,441,429	54,402,859	85,515,575	21.80	3,922,733
1989	73,337	26,847	27,851	46,953	21.88	2,146
1991	1,160,978	383,798	398,153	786,045	22.04	35,664
1992	267,875	83,336	86,453	186,780	22.13	8,440
1993	146,174	42,448	44,036	105,061	22.21	4,730
1994	1,326,193	355,900	369,211	983,506	22.30	44,103
1995	387,328	94,857	98,405	296,670	22.38	13,256
1997	231,904	44,730	46,403	190,139	22.56	8,428
1998	435,835	71,173	73,835	370,717	22.66	16,360
2000	1,657,813	163,179	169,282	1,521,687	22.85	66,595
2002	32,716	694	720	32,650	23.07	1,415
	142,895,088	53,708,391	55,717,208	90,035,783		4,123,870

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 323 TURBOGENERATOR UNITS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
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PALO VERDE WATER RECLAMATION
INTERIM SURVIVOR CURVE.. IOWA 60-S0
PROBABLE RETIREMENT YEAR.. 3-2027
NET SALVAGE PERCENT.. -2

1986	121,502	50,106	36,942	86,990	21.64	4,020
1995	96,188	23,557	17,368	80,744	22.38	3,608
2002	17			17	23.07	1
	217,707	73,663	54,310	167,751		7,629

PALO VERDE COMMON
INTERIM SURVIVOR CURVE.. IOWA 60-S0
PROBABLE RETIREMENT YEAR.. 3-2027
NET SALVAGE PERCENT.. -2

1986	426,809	176,010	69,388-	504,733	21.64	23,324
1988	19,161	7,325	2,888-	22,432	21.80	1,029
1993	245,285	71,229	28,080-	278,271	22.21	12,529
1995	20,547	5,032	1,984-	22,942	22.38	1,025
1997	247,023	47,646	18,783-	270,746	22.56	12,001
2000	265,054	26,089	10,285-	280,640	22.85	12,282
	1,223,879	333,331	131,408-	1,379,764		62,190
	338,898,976	134,913,512	136,960,348	208,716,609		9,972,299

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 20.9 2.94

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 324 ACCESSORY ELECTRIC EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PALO VERDE UNIT 1						
INTERIM SURVIVOR CURVE.. IOWA 45-R3						
PROBABLE RETIREMENT YEAR.. 12-2024						
NET SALVAGE PERCENT.. -2						
1986	111,085,976	50,149,986	50,565,389	62,742,307	19.99	3,138,685
1987	20,587	8,945	9,019	11,980	20.16	594
1988	1,049,796	437,204	440,825	629,967	20.33	30,987
1989	15,973	6,361	6,414	9,878	20.47	483
1990	116,503	44,123	44,488	74,345	20.61	3,607
1991	13,261	4,749	4,788	8,738	20.74	421
1992	857,984	288,710	291,102	584,042	20.86	27,998
1993	667,126	209,244	210,977	469,492	20.97	22,389
1995	100,425	26,448	26,667	75,767	21.17	3,579
1997	790,039	163,505	164,860	640,980	21.33	30,051
1998	82,754	14,501	14,621	69,788	21.41	3,260
1999	73,339	10,383	10,469	64,337	21.47	2,997
2001	621,407	40,692	41,029	592,806	21.59	27,457
	115,495,170	51,404,851	51,830,648	65,974,427		3,292,508

PALO VERDE UNIT 2
INTERIM SURVIVOR CURVE.. IOWA 45-R3
PROBABLE RETIREMENT YEAR.. 12-2025
NET SALVAGE PERCENT.. -2

1986	8,865,325	3,916,364	3,768,817	5,273,815	20.73	254,405
1987	39,531,366	16,798,142	16,165,282	24,156,711	20.92	1,154,718
1988	35,305	14,376	13,834	22,177	21.10	1,051
1989	903	351	338	583	21.27	27
1991	332,712	116,063	111,690	227,676	21.57	10,555
1992	10,359	3,392	3,264	7,302	21.70	336
1993	202,867	61,808	59,479	147,445	21.83	6,754
1994	38,898	10,927	10,515	29,161	21.94	1,329
1995	307,050	78,454	75,499	237,692	22.05	10,780
1996	58,128	13,293	12,792	46,499	22.14	2,100
1997	466,695	93,444	89,924	386,105	22.23	17,369
1999	269,780	36,818	35,431	239,745	22.39	10,708
	50,119,388	21,143,432	20,346,865	30,774,911		1,470,132

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 324 ACCESSORY ELECTRIC EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
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PALO VERDE UNIT 3
INTERIM SURVIVOR CURVE.. IOWA 45-R3
PROBABLE RETIREMENT YEAR.. 3-2027
NET SALVAGE PERCENT.. -2

1988	86,650,603	34,337,034	35,633,214	52,750,401	22.04	2,393,394
1989	105,402	39,811	41,314	66,196	22.23	2,978
1990	21,204	7,600	7,887	13,741	22.41	613
1991	856,548	289,799	300,739	572,940	22.57	25,385
1992	221,020	70,067	72,712	152,728	22.73	6,719
1994	201,219	54,615	56,677	148,566	23.00	6,459
1995	9,329	2,297	2,384	7,132	23.13	308
1997	631,690	121,455	126,039	518,285	23.34	22,206
1998	100,102	16,265	16,879	85,225	23.44	3,636
1999	10,979	1,436	1,490	9,709	23.53	413
2000	123,415	11,921	12,371	113,512	23.61	4,808
2002	212,112	4,457	4,625	211,729	23.74	8,919
	89,143,623	34,956,757	36,276,331	54,650,164		2,475,838

PALO VERDE COMMON
INTERIM SURVIVOR CURVE.. IOWA 45-R3
PROBABLE RETIREMENT YEAR.. 3-2027
NET SALVAGE PERCENT.. -2

1986	13,123,195	5,658,118	5,942,415	7,443,244	21.61	344,435
1987	42,196	17,474	18,352	24,688	21.83	1,131
1988	19,742	7,823	8,216	11,921	22.04	541
1991	130,002	43,984	46,194	86,408	22.57	3,828
1993	4,069,274	1,199,956	1,260,249	2,890,410	22.87	126,384
1995	202,592	49,884	52,390	154,254	23.13	6,669
1997	6,467	1,243	1,305	5,291	23.34	227
1999	324,725	42,462	44,596	286,624	23.53	12,181
	17,918,193	7,020,944	7,373,717	10,902,840		495,396
	272,676,374	114,525,984	115,827,561	162,302,342		7,733,874

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 21.0 2.84

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 325 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PALO VERDE UNIT 1						
INTERIM SURVIVOR CURVE.. IOWA 35-R0.5						
PROBABLE RETIREMENT YEAR.. 12-2024						
NET SALVAGE PERCENT.. -2						
1986	25,471,056	10,296,063	16,014,086	9,966,391	17.46	570,813
1987	35,092	13,659	21,245	14,549	17.60	827
1988	243,376	90,857	141,315	106,929	17.74	6,028
1989	6,991	2,494	3,879	3,252	17.87	182
1990	320,631	108,906	169,388	157,656	17.99	8,764
1991	48,499	15,573	24,222	25,247	18.11	1,394
1992	277,989	83,930	130,541	153,008	18.22	8,398
1993	483,247	136,093	211,674	281,238	18.33	15,343
1994	412,774	107,278	166,856	254,173	18.43	13,791
1995	1,566,928	370,958	576,973	1,021,294	18.53	55,116
1999	705,532	90,099	140,136	579,507	18.87	30,710
2001	99,290	5,864	9,121	92,155	19.02	4,845
	29,671,405	11,321,774	17,609,436	12,655,399		716,211

PALO VERDE UNIT 2
INTERIM SURVIVOR CURVE.. IOWA 35-R0.5
PROBABLE RETIREMENT YEAR.. 12-2025
NET SALVAGE PERCENT.. -2

1986	13,071,229	5,154,404	8,256,489	5,076,165	18.01	281,853
1988	148,579	53,997	86,494	65,057	18.32	3,551
1989	62,953	21,845	34,992	29,220	18.46	1,583
1990	293,733	96,803	155,062	144,546	18.60	7,771
1991	37,083	11,555	18,509	19,316	18.73	1,031
1992	28,474	8,330	13,343	15,700	18.85	833
1993	137,949	37,569	60,179	80,529	18.97	4,245
1994	5,663,387	1,423,368	2,279,996	3,496,659	19.08	183,263
1995	6,692,661	1,531,870	2,453,799	4,372,715	19.18	227,983
1999	253,358	31,037	49,716	208,709	19.56	10,670
	26,389,406	8,370,778	13,408,579	13,508,616		722,783

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 325 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
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PALO VERDE UNIT 3
INTERIM SURVIVOR CURVE.. IOWA 35-R0.5
PROBABLE RETIREMENT YEAR.. 3-2027
NET SALVAGE PERCENT.. -2

1988	22,670,541	7,982,388	13,252,399	9,871,553	19.01	519,282
1989	179,853	60,355	100,202	83,248	19.17	4,343
1990	264,564	84,330	140,005	129,850	19.32	6,721
1991	99,483	29,914	49,663	51,810	19.47	2,661
1992	11,694	3,302	5,482	6,446	19.60	329
1993	559,123	146,797	243,713	326,592	19.73	16,553
1994	3,057,723	738,238	1,225,627	1,893,250	19.86	95,330
1999	52,699	6,160	10,227	43,526	20.40	2,134
2000	388,366	33,592	55,769	340,364	20.50	16,603
	27,284,046	9,085,076	15,083,087	12,746,639		663,956

PALO VERDE WATER RECLAMATION
INTERIM SURVIVOR CURVE.. IOWA 35-R0.5
PROBABLE RETIREMENT YEAR.. 3-2027
NET SALVAGE PERCENT.. -2

1986	13,823	5,293	9,246	4,853	18.67	260
1988	1,700	599	1,046	688	19.01	36
1991	3,428	1,031	1,801	1,696	19.47	87
1992	69,868	19,726	34,459	36,806	19.60	1,878
	88,819	26,649	46,552	44,043		2,261

PALO VERDE COMMON
INTERIM SURVIVOR CURVE.. IOWA 35-R0.5
PROBABLE RETIREMENT YEAR.. 3-2027
NET SALVAGE PERCENT.. -2

1986	14,198,040	5,436,543	7,800,612	6,681,389	18.67	357,868
1987	33,033	12,153	17,438	16,256	18.84	863
1988	3,434,131	1,209,171	1,734,976	1,767,838	19.01	92,995
1989	1,916,089	643,001	922,609	1,031,802	19.17	53,824

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 325 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)

PALO VERDE COMMON

INTERIM SURVIVOR CURVE.. IOWA 35-R0.5

PROBABLE RETIREMENT YEAR.. 3-2027

NET SALVAGE PERCENT.. -2

1990	8,638,416	2,753,495	3,950,846	4,860,338	19.32	251,570
1991	2,609,213	784,580	1,125,753	1,535,644	19.47	78,872
1992	2,864,106	808,640	1,160,275	1,761,113	19.60	89,853
1993	2,453,354	644,123	924,218	1,578,203	19.73	79,990
1994	6,215,079	1,500,531	2,153,033	4,186,348	19.86	210,793
1995	1,673,517	367,344	527,083	1,179,904	19.98	59,054
1996	2,111,492	414,591	594,875	1,558,847	20.09	77,593
1997	690,137	118,543	170,091	533,849	20.20	26,428
1998	158,296	22,992	32,990	128,472	20.30	6,329
1999	280,086	32,740	46,977	238,711	20.40	11,702
2000	362,203	31,329	44,952	324,495	20.50	15,829
2002	822,318	15,517	22,265	816,499	20.67	39,502

48,459,510	14,795,293	21,228,993	28,199,708	1,453,065
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131,893,186	43,599,570	67,376,647	67,154,405	3,558,276
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COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT..	18.9	2.70
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ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 331 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)

CHILDS & IRVING COMBINED
INTERIM SURVIVOR CURVE.. SQUARE
PROBABLE RETIREMENT YEAR.. 12-2004
NET SALVAGE PERCENT.. 0

1945	74,599	72,092	74,599			
1960	6,421	6,133	6,421			
1998	19,858	13,748	19,858			
	100,878	91,973	100,878			

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 0.0 0.00

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 332 RESERVOIRS, DAMS AND WATERWAYS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)

CHILDS & IRVING COMBINED
INTERIM SURVIVOR CURVE.. SQUARE
PROBABLE RETIREMENT YEAR.. 12-2004
NET SALVAGE PERCENT.. 0

1945	765,472	739,752	874,068	108,596-		
1971	4,101	3,856	4,556	455-		
1990	218,744	188,579	222,819	4,075-		
1991	3,619	3,083	3,643	24-		
	991,936	935,270	1,105,086	113,150-		

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 0.0 0.00

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 333 WATER WHEELS, TURBINES AND GENERATORS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)

CHILDS & IRVING COMBINED
INTERIM SURVIVOR CURVE.. SQUARE
PROBABLE RETIREMENT YEAR.. 12-2004
NET SALVAGE PERCENT.. 0

1945	101,939	98,514	101,939			
1971	55,257	51,958	55,257			
	157,196	150,472	157,196			

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 0.0 0.00

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 334 ACCESSORY ELECTRIC EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)

CHILDS & IRVING COMBINED
INTERIM SURVIVOR CURVE.. SQUARE
PROBABLE RETIREMENT YEAR.. 12-2004
NET SALVAGE PERCENT.. 0

1945	13,191	12,748	13,191
1971	153,555	144,388	153,555
1982	9,257	8,434	9,257
1990	200,918	173,211	200,918
1991	159,769	136,107	159,769
1996	90,921	69,527	90,921
	627,611	544,415	627,611

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 0.0 0.00

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 335 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)

CHILDS & IRVING COMBINED
INTERIM SURVIVOR CURVE.. SQUARE
PROBABLE RETIREMENT YEAR.. 12-2004
NET SALVAGE PERCENT.. 0

1945	4,736	4,577	4,736
1971	4,192	3,942	4,192
1972	527	495	527
1973	2,311	2,164	2,311
1974	1,589	1,485	1,589
1975	816	761	816
1976	563	523	563
1977	1,565	1,451	1,565
1978	1,169	1,081	1,169
1979	179	165	179
1980	1,221	1,121	1,221
1981	7,478	6,842	7,478
1982	327	298	327
1983	935	848	935
1984	1,011	912	1,011
1985	2,506	2,249	2,506
1986	1,994	1,778	1,994
1987	1,734	1,536	1,734
1988	7,200	6,327	7,200
1990	66,779	57,570	66,779
1993	11,612	9,593	11,612
1998	5,574	3,859	5,574
	126,018	109,577	126,018

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 0.0 0.00

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 336 ROADS, RAILROADS AND BRIDGES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)

CHILDS & IRVING COMBINED
INTERIM SURVIVOR CURVE.. SQUARE
PROBABLE RETIREMENT YEAR.. 12-2004
NET SALVAGE PERCENT.. 0

1945	47,102	45,519	47,102			
1988	342	301	342			
1993	28,694	23,704	28,694			
1995	1,289	1,018	1,289			
	77,427	70,542	77,427			

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 0.0 0.00

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 341 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
DOUGLAS						
INTERIM SURVIVOR CURVE.. IOWA 80-S1						
PROBABLE RETIREMENT YEAR.. 6-2017						
NET SALVAGE PERCENT.. -5						
1972	3,785	2,696	2,851	1,123	13.86	81
1975	777	535	566	250	13.94	18
	4,562	3,231	3,417	1,373		99
OCOTILLO TURBINES 1 - 2						
INTERIM SURVIVOR CURVE.. IOWA 80-S1						
PROBABLE RETIREMENT YEAR.. 6-2017						
NET SALVAGE PERCENT.. -5						
1972	9,718	6,922	10,204			
1973	233,393	164,486	245,063			
2001	85,638	8,399	54,652	35,268	14.46	2,439
	328,749	179,807	309,919	35,268		2,439
SAGUARO TURBINES 1 - 2						
INTERIM SURVIVOR CURVE.. IOWA 80-S1						
PROBABLE RETIREMENT YEAR.. 6-2017						
NET SALVAGE PERCENT.. -5						
1972	9,836	7,006	6,939	3,389	13.86	245
1973	253,841	178,897	177,188	89,345	13.89	6,432
1974	44,847	31,258	30,959	16,130	13.91	1,160
1987	172,191	93,727	92,832	87,969	14.23	6,182
2001	389,695	38,217	37,852	371,328	14.46	25,680
2002	418,115	14,663	14,523	424,498	14.46	29,357
	1,288,525	363,768	360,293	992,659		69,056

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 341 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)

SOLAR UNIT 1
SURVIVOR CURVE.. 12-SQUARE
NET SALVAGE PERCENT.. 0

1988	640	640	640			
1990	102,091	102,091	102,091			
1991	25,983	24,900	18,490	7,493	0.50	7,493
1994	104,208	73,811	54,809	49,399	3.50	14,114
1995	119,337	74,586	55,385	63,952	4.50	14,212
1998	23,253	8,720	6,475	16,778	7.50	2,237
	375,512	284,748	237,890	137,622		38,056

WEST PHOENIX TURBINES 1 - 2
INTERIM SURVIVOR CURVE.. IOWA 80-S1
PROBABLE RETIREMENT YEAR.. 6-2017
NET SALVAGE PERCENT.. -5

1972	9,753	6,947	10,100	141	13.86	10
1973	252,701	178,094	258,924	6,412	13.89	462
1974	41,113	28,655	41,660	1,509	13.91	108
1983	3,401	2,054	2,986	585	14.14	41
1987	203,983	111,032	161,426	52,756	14.23	3,707
	510,951	326,782	475,096	61,403		4,328

WEST PHOENIX COMBINED CYCLE 1 - 3
INTERIM SURVIVOR CURVE.. IOWA 80-S1
PROBABLE RETIREMENT YEAR.. 6-2031
NET SALVAGE PERCENT.. -5

1963	17,431	10,809	18,303			
1971	76,635	43,050	80,467			
1976	2,764,578	1,427,310	2,902,807			
1977	2,943	1,489	3,090			
1978	22,376	11,090	23,495			
1981	22,711	10,471	23,774	73	26.51	3
1983	205,657	89,593	203,414	12,526	26.69	469

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 341 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WEST PHOENIX COMBINED CYCLE 1 - 3						
INTERIM SURVIVOR CURVE.. IOWA 80-S1						
PROBABLE RETIREMENT YEAR.. 6-2031						
NET SALVAGE PERCENT.. -5						
1985	438,587	178,957	406,308	54,208	26.87	2,017
1987	83,179	31,424	71,346	15,992	27.04	591
1989	14,744	5,082	11,538	3,943	27.21	145
1994	30,892	7,597	17,248	15,189	27.60	550
1996	52,610	10,463	23,756	31,485	27.74	1,135
1998	134,795	19,645	44,603	96,932	27.87	3,478
2001	12,598	672	1,526	11,702	28.05	417
2002	2,826,986	51,946	117,939	2,850,396	28.10	101,438
	6,706,722	1,899,598	3,949,614	3,092,446		110,243

YUCCA TURBINES 1 - 4
INTERIM SURVIVOR CURVE.. IOWA 80-S1
PROBABLE RETIREMENT YEAR.. 6-2016
NET SALVAGE PERCENT.. -5

1971	3,351	2,463	2,204	1,315	12.93	102
1973	9,069	6,535	5,847	3,675	12.98	283
1974	53,788	38,354	34,315	22,162	13.00	1,705
1975	64,575	45,530	40,735	27,069	13.02	2,079
1996	150,787	51,630	46,193	112,133	13.41	8,362
1997	56,340	17,173	15,364	43,793	13.42	3,263
2001	111,767	11,771	10,531	106,824	13.46	7,936
2002	3,074	116	104	3,124	13.47	232
	452,751	173,572	155,293	320,095		23,962
	9,667,772	3,231,506	5,491,522	4,640,866		248,183

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 18.7 2.57

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 342 FUEL HOLDERS, PRODUCTS AND ACCESSORIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)

DOUGLAS

INTERIM SURVIVOR CURVE.. IOWA 70-S1

PROBABLE RETIREMENT YEAR.. 6-2017

NET SALVAGE PERCENT.. -5

1972	43,741	31,162	29,409	16,519	13.62	1,213
1973	6,190	4,365	4,120	2,380	13.65	174
1976	6,617	4,502	4,249	2,699	13.76	196
1978	8,724	5,772	5,447	3,713	13.83	268
1992	72,487	32,149	30,341	45,770	14.25	3,212
	137,759	77,950	73,566	71,081		5,063

OCOTILLO TURBINES 1 - 2

INTERIM SURVIVOR CURVE.. IOWA 70-S1

PROBABLE RETIREMENT YEAR.. 6-2017

NET SALVAGE PERCENT.. -5

1972	68,145	48,548	43,233	28,319	13.62	2,079
1973	162,240	114,408	101,882	68,470	13.65	5,016
1974	7,133	4,973	4,429	3,061	13.69	224
1985	74,080	42,758	38,077	39,707	14.05	2,826
1986	33,900	19,043	16,958	18,637	14.08	1,324
1991	351,327	164,158	146,184	222,709	14.22	15,662
1993	23,034	9,619	8,566	15,620	14.28	1,094
	719,859	403,507	359,329	396,523		28,225

SAGUARO TURBINES 1 - 2

INTERIM SURVIVOR CURVE.. IOWA 70-S1

PROBABLE RETIREMENT YEAR.. 6-2017

NET SALVAGE PERCENT.. -5

1972	173,135	123,346	124,944	56,848	13.62	4,174
1973	530	374	379	178	13.65	13
1974	708,283	493,815	500,213	243,484	13.69	17,786
1993	423,029	176,651	178,940	265,240	14.28	18,574
	1,304,977	794,186	804,476	565,750		40,547

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 342 FUEL HOLDERS, PRODUCTS AND ACCESSORIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WEST PHOENIX TURBINES 1 - 2						
INTERIM SURVIVOR CURVE.. IOWA 70-S1						
PROBABLE RETIREMENT YEAR.. 6-2017						
NET SALVAGE PERCENT.. -5						
1972	171,681	122,310	117,522	62,743	13.62	4,607
1973	3,412	2,406	2,312	1,271	13.65	93
1974	284,024	198,022	190,270	107,955	13.69	7,886
1975	11,989	8,262	7,939	4,649	13.72	339
1977	432,319	290,246	278,884	175,051	13.79	12,694
1985	21	12	12	10	14.05	1
1990	196,631	96,088	92,326	114,137	14.20	8,038
1991	337,456	157,676	151,504	202,825	14.22	14,263
	1,437,533	875,022	840,769	668,641		47,921

WEST PHOENIX COMBINED CYCLE 1 - 3
INTERIM SURVIVOR CURVE.. IOWA 70-S1
PROBABLE RETIREMENT YEAR.. 6-2031
NET SALVAGE PERCENT.. -5

1974	551,252	297,569	429,424	149,391	24.87	6,007
1976	550,840	286,646	413,661	164,721	25.13	6,555
1977	524	267	385	165	25.26	7
1986	79,628	31,579	45,572	38,037	26.36	1,443
1987	11,263	4,291	6,192	5,634	26.48	213
1990	192,481	63,441	91,552	110,553	26.82	4,122
1993	65,549	17,688	25,526	43,300	27.14	1,595
2000	14,891,456	1,285,282	1,854,800	13,781,229	27.79	495,906
2001	609,575	32,707	47,200	592,854	27.86	21,280
2002	2,391,425	44,194	63,776	2,447,220	27.94	87,588
	19,343,993	2,063,664	2,978,088	17,333,104		624,716

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 342 FUEL HOLDERS, PRODUCTS AND ACCESSORIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
YUCCA TURBINES 1 - 4						
INTERIM SURVIVOR CURVE.. IOWA 70-S1						
PROBABLE RETIREMENT YEAR.. 6-2016						
NET SALVAGE PERCENT.. -5						
1971	118,702	87,246	106,164	18,473	12.71	1,453
1973	128,854	92,881	113,021	22,276	12.77	1,744
1974	2,694,213	1,921,122	2,337,684	491,240	12.81	38,348
1979	21,444	14,334	17,442	5,074	12.96	392
1992	176,590	81,492	99,162	86,258	13.29	6,490
1993	67,217	29,304	35,659	34,919	13.31	2,624
2002	25,197	947	1,152	25,305	13.46	1,880
	3,232,217	2,227,326	2,710,284	683,545		52,931
	26,176,338	6,441,655	7,766,512	19,718,644		799,403

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 24.7 3.05

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 343 PRIME MOVERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)

DOUGLAS

INTERIM SURVIVOR CURVE.. IOWA 70-L1.5

PROBABLE RETIREMENT YEAR.. 6-2017

NET SALVAGE PERCENT.. 0

1972	1,054,335	714,207	1,062,077	7,742-		
1982	5,455	3,199	4,757	698		
1983	41,659	23,921	35,572	6,087		
	1,101,449	741,327	1,102,406	957-		

OCOTILLO TURBINES 1 - 2

INTERIM SURVIVOR CURVE.. IOWA 70-L1.5

PROBABLE RETIREMENT YEAR.. 6-2017

NET SALVAGE PERCENT.. 0

1972	2,659,725	1,801,698	2,619,858	39,867	13.40	2,975
1973	3,313,441	2,220,668	3,229,083	84,358	13.45	6,272
1976	60,216	38,930	56,608	3,608	13.59	265
1979	5,051	3,126	4,546	505	13.72	37
1986	97,362	51,894	75,459	21,903	13.99	1,566
1999	407,743	79,469	115,557	292,186	14.33	20,390
2000	93,808	13,874	20,174	73,634	14.35	5,131
2001	41,978	3,942	5,732	36,246	14.37	2,522
	6,679,324	4,213,601	6,127,017	552,307		39,158

SAGUARO TURBINES 1 - 2

INTERIM SURVIVOR CURVE.. IOWA 70-L1.5

PROBABLE RETIREMENT YEAR.. 6-2017

NET SALVAGE PERCENT.. 0

1972	2,697,385	1,827,209	2,382,986	314,399	13.40	23,463
1973	3,289,440	2,204,583	2,875,145	414,295	13.45	30,803
1976	60,217	38,930	50,771	9,446	13.59	695
1981	2,831	1,692	2,207	624	13.81	45
1982	826,986	485,027	632,556	194,430	13.84	14,048
1992	832,088	350,226	456,753	375,335	14.17	26,488

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 343 PRIME MOVERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SAGUARO TURBINES 1 - 2						
INTERIM SURVIVOR CURVE.. IOWA 70-L1.5						
PROBABLE RETIREMENT YEAR.. 6-2017						
NET SALVAGE PERCENT.. 0						
2000	158,435	23,433	30,561	127,874	14.35	8,911
2002	235,269	7,905	10,309	224,960	14.39	15,633
	8,102,651	4,939,005	6,441,288	1,661,363		120,086

WEST PHOENIX TURBINES 1 - 2						
INTERIM SURVIVOR CURVE.. IOWA 70-L1.5						
PROBABLE RETIREMENT YEAR.. 6-2017						
NET SALVAGE PERCENT.. 0						
1972	2,525,677	1,710,894	2,383,426	142,251	13.40	10,616
1973	3,257,985	2,183,502	3,041,810	216,175	13.45	16,072
1976	101,025	65,313	90,987	10,038	13.59	739
1978	237,433	149,227	207,886	29,547	13.68	2,160
1979	489,711	303,082	422,220	67,491	13.72	4,919
1983	28,515	16,373	22,809	5,706	13.88	411
2001	1,886,893	177,179	246,826	1,640,067	14.37	114,131
2002	275,397	9,253	12,890	262,507	14.39	18,242
	8,802,636	4,614,823	6,428,854	2,373,782		167,290

YUCCA TURBINES 1 - 4						
INTERIM SURVIVOR CURVE.. IOWA 70-L1.5						
PROBABLE RETIREMENT YEAR.. 6-2016						
NET SALVAGE PERCENT.. 0						
1971	2,047,458	1,430,764	2,323,168	275,710-		
1973	2,444,467	1,674,704	2,719,260	274,793-		
1974	3,091,716	2,095,565	3,402,622	310,906-		
1978	326,659	210,499	341,792	15,133-		
1982	10,217	6,162	10,006	211		
2002	67	2	3	64		
	7,920,584	5,417,696	8,796,851	876,267-		
	32,606,644	19,926,452	28,896,416	3,710,228		326,534

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT..	11.4	1.00
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ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 344 GENERATORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
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DOUGLAS

INTERIM SURVIVOR CURVE.. IOWA 37-R3

PROBABLE RETIREMENT YEAR.. 6-2017

NET SALVAGE PERCENT.. 0

1972	551,765	402,733	546,431	5,334	9.72	549
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OCOTILLO TURBINES 1 - 2

INTERIM SURVIVOR CURVE.. IOWA 37-R3

PROBABLE RETIREMENT YEAR.. 6-2017

NET SALVAGE PERCENT.. 0

1972	289,022	210,957	192,446	96,576	9.72	9,936
1973	438,616	314,839	287,213	151,403	10.09	15,005
1988	940,259	478,310	436,340	503,919	13.49	37,355
1989	1,151,455	563,868	514,390	637,065	13.60	46,843
1993	2,095,383	838,572	764,990	1,330,393	13.94	95,437
1996	126,695	39,491	36,026	90,669	14.13	6,417
2000	423,620	62,653	57,155	366,465	14.29	25,645
2001	936,994	88,265	80,520	856,474	14.32	59,810
	6,402,044	2,596,955	2,369,080	4,032,964		296,448

SAGUARO TURBINES 1 - 2

INTERIM SURVIVOR CURVE.. IOWA 37-R3

PROBABLE RETIREMENT YEAR.. 6-2017

NET SALVAGE PERCENT.. 0

1972	1,199,388	875,433	920,517	278,871	9.72	28,690
1973	850,430	610,439	641,876	208,554	10.09	20,669
1992	300,243	127,603	134,175	166,068	13.87	11,973
1994	258,349	96,416	101,381	156,968	14.01	11,204
2001	1,576,837	148,538	156,188	1,420,649	14.32	99,207
	4,185,247	1,858,429	1,954,137	2,231,110		171,743

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 344 GENERATORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SOLAR UNIT 1						
SURVIVOR CURVE.. 12-SQUARE						
NET SALVAGE PERCENT.. 0						
1997	893,810	409,633	510,524	383,286	6.50	58,967
1998	3,870,496	1,451,436	1,808,920	2,061,576	7.50	274,877
1999	1,633,145	476,388	593,721	1,039,424	8.50	122,285
2000	436,757	90,976	113,383	323,374	9.50	34,039
2001	98,873	12,359	15,403	83,470	10.50	7,950
	6,933,081	2,440,792	3,041,951	3,891,130		498,118

WEST PHOENIX TURBINES 1 - 2
INTERIM SURVIVOR CURVE.. IOWA 37-R3
PROBABLE RETIREMENT YEAR.. 6-2017
NET SALVAGE PERCENT.. 0

1972	1,184,593	864,634	876,269	308,324	9.72	31,721
1973	790,787	567,627	575,265	215,522	10.09	21,360
1985	253,721	141,830	143,739	109,982	13.11	8,389
1992	1,886,800	801,890	812,680	1,074,120	13.87	77,442
	4,115,901	2,375,981	2,407,953	1,707,948		138,912

WEST PHOENIX COMBINED CYCLE 1 - 3
INTERIM SURVIVOR CURVE.. IOWA 37-R3
PROBABLE RETIREMENT YEAR.. 6-2031
NET SALVAGE PERCENT.. -2

1976	1,797,447	1,154,489	1,408,658	424,738	13.69	31,025
1977	2,331	1,452	1,772	606	14.38	42
1978	7,701	4,645	5,668	2,187	15.08	145
1979	2,986	1,742	2,126	920	15.78	58
1982	2,524	1,318	1,608	966	17.88	54
1983	3,159,190	1,583,797	1,932,481	1,289,893	18.57	69,461
1985	131,999	60,628	73,976	60,663	19.90	3,048
1987	346,738	144,440	176,240	177,433	21.15	8,389
1990	76,663	26,845	32,755	45,441	22.84	1,990

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 344 GENERATORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
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WEST PHOENIX COMBINED CYCLE 1 - 3
INTERIM SURVIVOR CURVE.. IOWA 37-R3
PROBABLE RETIREMENT YEAR.. 6-2031
NET SALVAGE PERCENT.. -2

1996	446,453	90,940	110,961	344,421	25.40	13,560
1998	509,854	75,355	91,945	428,106	26.02	16,453
2000	62,222,903	5,382,032	6,566,925	56,900,436	26.54	2,143,950
2001	8,459,734	452,156	551,702	8,077,227	26.76	301,840
2002	4,753,699	88,248	107,676	4,741,097	26.96	175,857
	81,920,222	9,068,087	11,064,493	72,494,134		2,765,872

YUCCA TURBINES 1 - 4
INTERIM SURVIVOR CURVE.. IOWA 37-R3
PROBABLE RETIREMENT YEAR.. 6-2016
NET SALVAGE PERCENT.. 0

1971	1,071,486	802,007	927,889	143,597	9.05	15,867
1973	1,074,936	779,974	902,398	172,538	9.73	17,733
1974	1,562,199	1,115,879	1,291,026	271,173	10.04	27,009
1981	368,619	232,267	268,723	99,896	11.74	8,509
1983	344,735	208,117	240,783	103,952	12.06	8,620
1993	42,694	17,786	20,578	22,116	13.04	1,696
2001	819,021	82,148	95,041	723,980	13.36	54,190
2002	112,128	4,037	4,671	107,457	13.38	8,031
	5,395,818	3,242,215	3,751,109	1,644,709		141,655
	109,504,078	21,985,192	25,135,154	86,007,329		4,013,297

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 21.4 3.66

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 345 ACCESSORY ELECTRIC EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
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DOUGLAS

INTERIM SURVIVOR CURVE.. IOWA 50-S2
PROBABLE RETIREMENT YEAR.. 6-2017
NET SALVAGE PERCENT.. 0

1972	297,620	206,608	263,269	34,351	12.50	2,748
1975	5,529	3,703	4,718	811	12.85	63
1980	5,502	3,412	4,348	1,154	13.38	86
1992	44,626	18,899	24,082	20,544	14.25	1,442
	353,277	232,622	296,417	56,860		4,339

OCOTILLO TURBINES 1 - 2

INTERIM SURVIVOR CURVE.. IOWA 50-S2
PROBABLE RETIREMENT YEAR.. 6-2017
NET SALVAGE PERCENT.. 0

1972	775,819	538,574	655,963	119,856	12.50	9,588
1973	322,270	221,206	269,420	52,850	12.62	4,188
1984	117,478	66,962	81,557	35,921	13.74	2,614
1985	106,389	59,099	71,981	34,408	13.82	2,490
1987	1,529	801	976	553	13.97	40
1990	33,839	15,837	19,289	14,550	14.15	1,028
1994	129,755	48,269	58,789	70,966	14.33	4,952
2002	7,557	252	307	7,250	14.48	501
	1,494,636	951,000	1,158,282	336,354		25,401

SAGUARO TURBINES 1 - 2

INTERIM SURVIVOR CURVE.. IOWA 50-S2
PROBABLE RETIREMENT YEAR.. 6-2017
NET SALVAGE PERCENT.. 0

1972	821,916	570,574	627,394	194,522	12.50	15,562
1973	254,701	174,827	192,237	62,464	12.62	4,950
1982	76	45	49	27	13.57	2
1983	45,868	26,764	29,429	16,439	13.66	1,203
1984	117,272	66,845	73,502	43,770	13.74	3,186

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 345 ACCESSORY ELECTRIC EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SAGUARO TURBINES 1 - 2						
INTERIM SURVIVOR CURVE.. IOWA 50-S2						
PROBABLE RETIREMENT YEAR.. 6-2017						
NET SALVAGE PERCENT.. 0						
1985	92,321	51,284	56,391	35,930	13.82	2,600
1987	41,539	21,754	23,921	17,618	13.97	1,261
1988	108,335	54,872	60,337	47,998	14.03	3,421
1990	52,052	24,360	26,786	25,266	14.15	1,786
1992	40,417	17,117	18,822	21,595	14.25	1,515
1994	52,305	19,457	21,394	30,911	14.33	2,157
2002	88,972	2,972	3,268	85,704	14.48	5,919
	1,715,774	1,030,871	1,133,530	582,244		43,562

SOLAR UNIT 1
SURVIVOR CURVE.. 12-SQUARE
NET SALVAGE PERCENT.. 0

2000	103,457	21,550	9,292	94,165	9.50	9,912
2001	66,070	8,259	3,561	62,509	10.50	5,953
	169,527	29,809	12,853	156,674		15,865

WEST PHOENIX TURBINES 1 - 2
INTERIM SURVIVOR CURVE.. IOWA 50-S2
PROBABLE RETIREMENT YEAR.. 6-2017
NET SALVAGE PERCENT.. 0

1972	699,617	485,674	537,281	162,336	12.50	12,987
1973	380,931	261,471	289,254	91,677	12.62	7,264
1984	116,759	66,553	73,625	43,134	13.74	3,139
1985	104,626	58,120	64,296	40,330	13.82	2,918
1986	1,985	1,072	1,186	799	13.90	57
1990	79,273	37,100	41,042	38,231	14.15	2,702
1993	39,683	15,826	17,508	22,175	14.29	1,552
1994	133,684	49,730	55,014	78,670	14.33	5,490
1996	1,186	369	408	778	14.39	54
	1,557,744	975,915	1,079,614	478,130		36,163

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 345 ACCESSORY ELECTRIC EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WEST PHOENIX COMBINED CYCLE 1 - 3						
INTERIM SURVIVOR CURVE.. IOWA 50-S2						
PROBABLE RETIREMENT YEAR.. 6-2031						
NET SALVAGE PERCENT.. 0						
1976	2,303,097	1,240,218	2,303,097			
1977	2,884	1,518	2,884			
1985	31,848	13,156	28,959	2,889	24.34	119
1989	112,405	38,622	85,014	27,391	25.54	1,072
1990	126,211	40,981	90,207	36,004	25.81	1,395
1992	184,125	52,347	115,225	68,900	26.31	2,619
1996	148,416	28,689	63,150	85,266	27.13	3,143
2000	5,026,479	415,690	915,011	4,111,468	27.72	148,321
2002	3,990,180	70,227	154,583	3,835,597	27.93	137,329

11,925,645 1,901,448 3,758,130 8,167,515 293,998

YUCCA TURBINES 1 - 4
INTERIM SURVIVOR CURVE.. IOWA 50-S2
PROBABLE RETIREMENT YEAR.. 6-2016
NET SALVAGE PERCENT.. 0

1971	614,123	438,607	591,382	22,741	11.68	1,947
1973	757,805	530,236	714,927	42,878	11.89	3,606
1974	484,841	335,316	452,112	32,729	12.00	2,727
1985	15,463	8,842	11,922	3,541	12.94	274
1986	13,569	7,555	10,187	3,382	13.00	260
1993	5,975	2,485	3,351	2,624	13.33	197
2001	246,938	24,718	33,327	213,611	13.48	15,847
2002	27,812	993	1,339	26,473	13.49	1,962

2,166,526 1,348,752 1,818,547 347,979 26,820

19,383,129 6,470,417 9,257,373 10,125,756 446,148

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 22.7 2.30

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 346 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
DOUGLAS						
INTERIM SURVIVOR CURVE.. IOWA 70-L1						
PROBABLE RETIREMENT YEAR.. 6-2017						
NET SALVAGE PERCENT.. 0						
1972	12,793	8,597	11,481	1,312	13.28	99
1978	238	149	199	39	13.49	3
1981	237	141	188	49	13.61	4
1983	2,045	1,171	1,564	481	13.68	35
1984	1,000	560	748	252	13.72	18
1985	1,267	692	924	343	13.76	25
1986	12,068	6,420	8,574	3,494	13.80	253
1992	10,471	4,400	5,876	4,595	14.03	328
1996	794	246	328	466	14.16	33
	40,913	22,376	29,882	11,031		798

OCOTILLO TURBINES 1 - 2
INTERIM SURVIVOR CURVE.. IOWA 70-L1
PROBABLE RETIREMENT YEAR.. 6-2017
NET SALVAGE PERCENT.. 0

1972	27,636	18,571	27,516	120	13.28	9
1973	214,767	142,884	211,708	3,059	13.31	230
1975	4,765	3,101	4,595	170	13.38	13
1976	29,390	18,895	27,996	1,394	13.41	104
1978	3,414	2,135	3,163	251	13.49	19
1979	826	509	754	72	13.53	5
1980	931	564	836	95	13.57	7
1983	10,251	5,870	8,697	1,554	13.68	114
1985	120,803	66,019	97,819	22,984	13.76	1,670
1987	47,463	24,519	36,330	11,133	13.84	804
1993	47,003	18,627	27,599	19,404	14.06	1,380
1999	45,924	8,937	13,242	32,682	14.24	2,295
	553,173	310,631	460,255	92,918		6,650

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 346 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SAGUARO TURBINES 1 - 2						
INTERIM SURVIVOR CURVE.. IOWA 70-L1						
PROBABLE RETIREMENT YEAR.. 6-2017						
NET SALVAGE PERCENT.. 0						
1972	33,253	22,346	28,506	4,747	13.28	357
1973	238,419	158,620	202,345	36,074	13.31	2,710
1976	2,105	1,353	1,726	379	13.41	28
1978	2,054	1,285	1,639	415	13.49	31
1983	506	290	370	136	13.68	10
1986	86,316	45,920	58,578	27,738	13.80	2,010
1987	6,340	3,275	4,178	2,162	13.84	156
1991	9,357	4,141	5,283	4,074	13.99	291
1992	24,043	10,103	12,888	11,155	14.03	795
2000	388,513	57,111	72,854	315,659	14.27	22,120
	790,906	304,444	388,367	402,539		28,508

WEST PHOENIX TURBINES 1 - 2
INTERIM SURVIVOR CURVE.. IOWA 70-L1
PROBABLE RETIREMENT YEAR.. 6-2017
NET SALVAGE PERCENT.. 0

1972	27,545	18,510	23,511	4,034	13.28	304
1973	253,162	168,429	213,936	39,226	13.31	2,947
1975	4,229	2,752	3,496	733	13.38	55
1976	9,477	6,093	7,739	1,738	13.41	130
1977	14,469	9,179	11,659	2,810	13.45	209
1978	4,421	2,765	3,512	909	13.49	67
1979	8,451	5,207	6,614	1,837	13.53	136
1980	673	408	518	155	13.57	11
1981	1,248	743	944	304	13.61	22
1982	4,440	2,594	3,295	1,145	13.65	84
1983	3,403	1,949	2,476	927	13.68	68
1984	2,499	1,399	1,777	722	13.72	53
1985	8,245	4,506	5,723	2,522	13.76	183
1986	102,924	54,756	69,550	33,374	13.80	2,418
1987	5,946	3,072	3,902	2,044	13.84	148

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 346 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WEST PHOENIX TURBINES 1 - 2						
INTERIM SURVIVOR CURVE.. IOWA 70-L1						
PROBABLE RETIREMENT YEAR.. 6-2017						
NET SALVAGE PERCENT.. 0						
1988	3,361	1,681	2,135	1,226	13.88	88
1993	77,442	30,690	38,982	38,460	14.06	2,735
2000	425,496	62,548	79,448	346,048	14.27	24,250
	957,431	377,281	479,217	478,214		33,908

WEST PHOENIX COMBINED CYCLE 1 - 3
INTERIM SURVIVOR CURVE.. IOWA 70-L1
PROBABLE RETIREMENT YEAR.. 6-2031
NET SALVAGE PERCENT.. 0

1976	4,807	2,351	4,807			
1977	49,192	23,607	49,192			
1978	11,867	5,581	11,867			
1979	18,683	8,604	18,683			
1981	22,020	9,669	22,020			
1982	8,283	3,541	8,283			
1983	117,544	48,851	117,544			
1984	6,994	2,819	6,994			
1985	146,500	57,091	146,500			
1986	73,454	27,611	72,999	455	25.27	18
1987	26,655	9,630	25,460	1,195	25.40	47
1988	109,370	37,820	99,990	9,380	25.54	367
1989	39,313	12,965	34,277	5,036	25.67	196
1990	5,355	1,676	4,431	924	25.80	36
1991	50,461	14,881	39,343	11,118	25.94	429
1993	1,446,690	371,076	981,068	465,622	26.20	17,772
1996	7,954	1,514	4,003	3,951	26.59	149
1997	29,745	4,926	13,024	16,721	26.71	626
2000	196,926	16,227	42,901	154,025	27.06	5,692
2002	237,064	4,196	11,094	225,970	27.27	8,286
	2,608,877	664,636	1,714,480	894,397		33,618

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 346 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
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YUCCA TURBINES 1 - 4
INTERIM SURVIVOR CURVE.. IOWA 70-L1
PROBABLE RETIREMENT YEAR.. 6-2016
NET SALVAGE PERCENT.. 0

1971	18,488	12,818	18,488			
1973	31,311	21,310	31,311			
1974	238,461	160,627	238,461			
1975	791	527	791			
1977	131	85	131			
1978	2,523	1,619	2,523			
1980	1,025	638	1,025			
1982	44,221	26,581	44,221			
1985	9,112	5,136	9,112			
1987	15,888	8,483	15,504	384	12.94	30
1989	37,335	18,645	34,075	3,260	13.01	251
1991	4,636	2,132	3,897	739	13.07	57
1997	23,253	6,727	12,294	10,959	13.24	828
	427,175	265,328	411,833	15,342		1,166
	5,378,475	1,944,696	3,484,034	1,894,441		104,648

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 18.1 1.95

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 352 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 50-R4						
NET SALVAGE PERCENT.. -5						
1929	14,612	15,158	14,568	775	0.60	775
1939	2,385	2,359	2,267	237	2.90	82
1942	9,791	9,520	9,149	1,132	3.70	306
1953	24,842	22,145	21,283	4,801	7.55	636
1954	41,569	36,620	35,194	8,453	8.05	1,050
1955	1,534	1,334	1,282	329	8.58	38
1957	58,044	49,074	47,163	13,783	9.74	1,415
1958	35,986	29,956	28,790	8,995	10.36	868
1959	155,159	127,075	122,127	40,790	11.00	3,708
1960	32,361	26,048	25,034	8,945	11.67	766
1961	18,329	14,492	13,928	5,317	12.35	431
1962	238,942	185,457	178,236	72,653	13.04	5,572
1963	198,590	151,218	145,330	63,190	13.74	4,599
1964	3,117	2,326	2,235	1,038	14.46	72
1965	67,857	49,590	47,659	23,591	15.20	1,552
1966	1,908	1,364	1,311	692	15.95	43
1967	25,728	17,986	17,286	9,728	16.71	582
1968	4,381	2,991	2,875	1,725	17.49	99
1969	2,433	1,620	1,557	998	18.29	55
1970	28,371	18,410	17,693	12,097	19.10	633
1971	51,676	32,643	31,372	22,888	19.92	1,149
1972	130,297	80,008	76,893	59,919	20.76	2,886
1973	140,316	83,655	80,398	66,934	21.61	3,097
1974	124,064	71,699	68,907	61,360	22.48	2,730
1975	1,232,121	689,298	662,461	631,266	23.36	27,023
1976	300,526	162,509	156,182	159,370	24.25	6,572
1977	172,008	89,762	86,267	94,341	25.15	3,751
1978	1,004,670	505,088	485,423	569,481	26.06	21,853
1979	326,574	157,872	151,725	191,178	26.98	7,086
1980	1,027,736	476,756	458,194	620,929	27.91	22,248
1981	314,879	139,854	134,409	196,214	28.85	6,801
1982	143,820	61,039	58,663	92,348	29.79	3,100
1983	91,743	37,087	35,643	60,687	30.75	1,974
1984	2,056,981	790,066	759,306	1,400,524	31.71	44,167
1985	187,716	68,315	65,655	131,447	32.67	4,023

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 352 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 50-R4						
NET SALVAGE PERCENT.. -5						
1986	6,192,802	2,127,599	2,044,763	4,457,679	33.64	132,511
1987	1,013,595	327,371	314,625	749,650	34.62	21,654
1988	773,594	233,935	224,827	587,447	35.60	16,501
1989	1,637,022	461,346	443,384	1,275,489	36.58	34,868
1990	790,885	206,611	198,567	631,862	37.56	16,823
1991	6,252	1,503	1,444	5,121	38.55	133
1992	66,912	14,698	14,126	56,132	39.54	1,420
1993	59,832	11,899	11,436	51,388	40.53	1,268
1994	416,114	74,102	71,217	365,703	41.52	8,808
1995	45,582	7,160	6,881	40,980	42.52	964
1996	2,251,211	306,818	294,872	2,068,900	43.51	47,550
1997	3,097,968	357,165	343,259	2,909,607	44.51	65,370
1998	247,847	23,369	22,459	237,780	45.51	5,225
1999	277,815	20,419	19,624	272,082	46.50	5,851
2000	122,974	6,456	6,205	122,918	47.50	2,588
2001	2,346,828	73,925	71,047	2,393,122	48.50	49,343
	27,618,299	8,464,770	8,135,201	20,864,015		592,619

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 35.2 2.15

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 352.5 STRUCTURES AND IMPROVEMENTS - SCE 500 KV LINE

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	-ACCRUED DEPREC.- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. 40-SQUARE							
NET SALVAGE PERCENT.. -30							
1971	318,750	40.00	2.50	7,968.75	8.50	.7875	251,016
1972	146	40.00	2.50	3.65	9.50	.7625	111
1973	12,367	40.00	2.50	309.18	10.50	.7375	9,121
1974	17,801	40.00	2.50	445.03	11.50	.7125	12,683
1999	60,661	40.00	2.50	1,516.53	36.50	.0875	5,308
				10,243.14			278,239
NET SALVAGE ADJUSTMENT				3,072.94			83,472
TOTAL	409,725			13,316.08			361,711

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 3.25

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 353 STATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 42-R3						
NET SALVAGE PERCENT.. 0						
1929	22,830	22,830	22,830			
1936	3,198	3,117	3,198			
1937	4,788	4,639	4,788			
1938	3,775	3,636	3,775			
1939	58,601	56,087	58,601			
1940	1,302	1,238	1,302			
1945	88,531	81,493	88,531			
1946	8,672	7,931	8,672			
1948	62,397	56,276	62,397			
1949	259,509	232,390	259,509			
1950	224,911	199,946	224,911			
1952	371,456	325,098	371,456			
1953	308,467	267,719	308,467			
1954	1,535,823	1,320,808	1,535,823			
1955	1,488,882	1,268,379	1,488,882			
1956	241,417	203,587	241,417			
1957	615,610	513,419	615,610			
1958	1,052,541	867,820	1,052,541			
1959	1,165,484	949,287	1,165,484			
1960	1,940,121	1,559,469	1,940,121			
1961	192,338	152,447	192,338			
1962	3,149,040	2,459,400	3,149,040			
1963	6,062,058	4,659,298	6,032,311	29,747	9.72	3,060
1964	266,708	201,551	260,945	5,763	10.26	562
1965	553,908	411,221	532,401	21,507	10.82	1,988
1966	506,829	369,276	478,095	28,734	11.40	2,521
1967	388,653	277,615	359,423	29,230	12.00	2,436
1968	481,896	337,086	436,419	45,477	12.62	3,604
1969	1,821,456	1,246,422	1,613,721	207,735	13.26	15,666
1970	2,289,745	1,530,924	1,982,060	307,685	13.92	22,104
1971	5,919,728	3,862,031	5,000,103	919,625	14.60	62,988
1972	2,651,631	1,686,437	2,183,400	468,231	15.29	30,623
1973	4,212,069	2,607,271	3,375,588	836,481	16.00	52,280
1974	3,810,669	2,293,642	2,969,538	841,131	16.72	50,307
1975	13,534,989	7,908,494	10,238,988	3,296,001	17.46	188,774

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 353 STATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 42-R3						
NET SALVAGE PERCENT.. 0						
1976	4,388,156	2,484,574	3,216,734	1,171,422	18.22	64,293
1977	2,966,492	1,625,934	2,105,068	861,424	18.98	45,386
1978	27,968,778	14,809,468	19,173,557	8,795,221	19.76	445,102
1979	7,842,832	4,003,766	5,183,605	2,659,227	20.56	129,340
1980	19,059,867	9,366,019	12,126,019	6,933,848	21.36	324,618
1981	14,426,831	6,808,022	8,814,226	5,612,605	22.18	253,048
1982	7,393,573	3,342,634	4,327,649	3,065,924	23.01	133,243
1983	4,034,244	1,743,197	2,256,886	1,777,358	23.85	74,522
1984	11,051,702	4,552,196	5,893,648	5,158,054	24.70	208,828
1985	3,012,910	1,178,650	1,525,977	1,486,933	25.57	58,151
1986	38,589,436	14,297,386	18,510,573	20,078,863	26.44	759,412
1987	9,235,173	3,227,693	4,178,837	5,056,336	27.32	185,078
1988	19,545,737	6,412,956	8,302,741	11,242,996	28.22	398,405
1989	11,845,846	3,633,121	4,703,738	7,142,108	29.12	245,265
1990	11,517,106	3,280,072	4,246,651	7,270,455	30.04	242,026
1991	7,395,784	1,944,352	2,517,318	4,878,466	30.96	157,573
1992	2,814,458	677,440	877,070	1,937,388	31.89	60,752
1993	992,039	216,860	280,765	711,274	32.82	21,672
1994	2,768,114	542,550	702,430	2,065,684	33.77	61,169
1995	4,052,181	702,243	909,182	3,142,999	34.72	90,524
1996	46,591,401	7,021,324	9,090,384	37,501,017	35.67	1,051,332
1998	17,354,374	1,818,738	2,354,688	14,999,686	37.60	398,928
1999	15,636,588	1,277,509	1,653,968	13,982,620	38.57	362,526
2000	12,254,988	714,466	925,006	11,329,982	39.55	286,472
2001	25,075,008	877,625	1,136,246	23,938,762	40.53	590,643
2002	45,622,655	533,785	691,082	44,931,573	41.51	1,082,428

428,736,305	135,040,864	173,966,733	254,769,572	8,167,649
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COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT..	31.2	1.91
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ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 353.5 STATION EQUIPMENT - SCE 500 KV LINE

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	-ACCRUED DEPREC.- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. 40-SQUARE							
NET SALVAGE PERCENT.. -30							
1971	4,774,553	40.00	2.50	119,363.83	8.50	.7875	3,759,960
1972	5,442	40.00	2.50	136.05	9.50	.7625	4,150
1973	4,083	40.00	2.50	102.08	10.50	.7375	3,011
1974	11,636	40.00	2.50	290.90	11.50	.7125	8,291
1975	612,152	40.00	2.50	15,303.80	12.50	.6875	420,855
1985	10,837	40.00	2.50	270.93	22.50	.4375	4,741
1986	26,295	40.00	2.50	657.38	23.50	.4125	10,847
1987	2,553	40.00	2.50	63.83	24.50	.3875	989
1989	62,556	40.00	2.50	1,563.90	26.50	.3375	21,113
1990	64,178	40.00	2.50	1,604.45	27.50	.3125	20,056
1991	23,855	40.00	2.50	596.38	28.50	.2875	6,858
1992	1,997,827	40.00	2.50	49,945.68	29.50	.2625	524,430
1993	62,335	40.00	2.50	1,558.38	30.50	.2375	14,805
1996	48,637	40.00	2.50	1,215.93	33.50	.1625	7,904
1997	28,210	40.00	2.50	705.25	34.50	.1375	3,879
2000	12,133	40.00	2.50	303.33	37.50	.0625	758
				193,682.10			4,812,647
NET SALVAGE ADJUSTMENT				58,104.63			1,443,794
TOTAL	7,747,282			251,786.73			6,256,441

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 3.25

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 354 TOWERS AND FIXTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 60-R3						
NET SALVAGE PERCENT.. -35						
1959	136,120	116,726	114,665	69,097	21.89	3,157
1961	4,712	3,889	3,820	2,541	23.32	109
1962	8,133,425	6,579,290	6,463,108	4,517,016	24.05	187,818
1963	2,685,421	2,127,337	2,089,771	1,535,547	24.79	61,942
1964	1,244,702	965,360	948,313	732,035	25.53	28,674
1966	356,316	264,084	259,421	221,606	27.06	8,189
1968	631,866	445,958	438,083	414,936	28.63	14,493
1969	6,344	4,365	4,288	4,276	29.42	145
1971	522	340	334	371	31.04	12
1973	374,431	230,095	226,032	279,450	32.69	8,548
1974	3,237,617	1,928,389	1,894,336	2,476,447	33.53	73,858
1975	2,156,815	1,243,296	1,221,341	1,690,359	34.38	49,167
1976	2,501,971	1,394,298	1,369,676	2,007,985	35.23	56,996
1977	282,877	152,181	149,494	232,390	36.09	6,439
1978	33,838,801	17,542,034	17,232,263	28,450,118	36.96	769,754
1980	249,816	119,623	117,511	219,741	38.72	5,675
1981	13,364	6,130	6,022	12,019	39.61	303
1982	2,432,549	1,066,624	1,047,789	2,236,152	40.51	55,200
1984	2,570,893	1,022,817	1,004,755	2,465,951	42.32	58,269
1985	398,441	150,234	147,581	390,314	43.24	9,027
1986	8,215,226	2,927,907	2,876,203	8,214,352	44.16	186,013
1988	458,443	144,203	141,657	477,241	46.02	10,370
1989	3,305,471	969,676	952,552	3,509,834	46.96	74,741
1994	102,867	19,192	18,853	120,017	51.71	2,321
1996	8,700,482	1,242,690	1,220,746	10,524,905	53.65	196,177
2001	1,248,957	41,646	40,910	1,645,182	58.52	28,113
2002	176,082	1,949	1,915	235,796	59.51	3,962
	83,464,531	40,710,333	39,991,439	72,685,678		1,899,472

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 38.3 2.28

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 354.5 TOWERS AND FIXTURES - SCE 500 KV LINE

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL RATE (4)	ACCRUAL-- AMOUNT (5)	EXP. (6)	-ACCRUED DEPREC.- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. 40-SQUARE							
NET SALVAGE PERCENT.. -30							
1969	13,581,182	40.00	2.50	339,529.55	6.50	.8375	11,374,240
1983	14,902	40.00	2.50	372.55	20.50	.4875	7,265
1984	49,608	40.00	2.50	1,240.20	21.50	.4625	22,944
1985	27,346	40.00	2.50	683.65	22.50	.4375	11,964
1988	79,546	40.00	2.50	1,988.65	25.50	.3625	28,835
				343,814.60			11,445,248
	NET SALVAGE ADJUSTMENT			103,144.38			3,433,574
TOTAL	13,752,584			446,958.98			14,878,822

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 3.25

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 355 POLES AND FIXTURES - WOOD

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 48-R1.5						
NET SALVAGE PERCENT.. -35						
1946	60,329	61,368	78,449	2,995	11.83	253
1948	144,187	143,517	183,464	11,188	12.61	887
1949	12,037	11,846	15,143	1,107	13.01	85
1952	58,987	55,926	71,493	8,139	14.29	570
1953	172,285	161,158	206,016	26,569	14.74	1,803
1954	55,946	51,608	65,973	9,554	15.20	629
1955	581,615	528,819	676,013	109,167	15.67	6,967
1956	99,312	88,956	113,716	20,355	16.15	1,260
1957	54,309	47,898	61,230	12,087	16.64	726
1958	451,349	391,733	500,770	108,551	17.14	6,333
1959	191,665	163,606	209,145	49,603	17.65	2,810
1960	66,200	55,517	70,970	18,400	18.18	1,012
1961	1,754,296	1,445,136	1,847,383	520,917	18.71	27,842
1962	133,097	107,575	137,518	42,163	19.26	2,189
1963	30,131	23,890	30,540	10,137	19.81	512
1964	66,632	51,759	66,166	23,787	20.38	1,167
1965	690,274	524,922	671,031	260,839	20.96	12,445
1966	110,021	81,869	104,657	43,871	21.54	2,037
1967	84,908	61,749	78,937	35,689	22.14	1,612
1968	245,297	174,252	222,754	108,397	22.74	4,767
1969	369,647	256,149	327,447	171,576	23.36	7,345
1970	206,840	139,729	178,622	100,612	23.98	4,196
1971	170,726	112,267	143,516	86,964	24.62	3,532
1972	541,168	346,074	442,402	288,175	25.26	11,408
1973	164,843	102,412	130,918	91,620	25.91	3,536
1974	133,662	80,568	102,994	77,450	26.57	2,915
1975	434,209	253,524	324,091	262,091	27.24	9,622
1976	518,432	292,901	374,429	325,454	27.91	11,661
1977	969,302	529,181	676,476	632,082	28.59	22,108
1978	961,029	505,982	646,820	650,569	29.28	22,219
1979	1,003,363	508,494	650,031	704,509	29.98	23,499
1980	1,208,105	588,118	751,818	879,124	30.69	28,645
1981	1,058,954	494,351	631,951	797,637	31.40	25,402
1982	2,037,584	910,494	1,163,925	1,586,813	32.11	49,418
1983	646,717	275,715	352,459	520,609	32.84	15,853

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 355 POLES AND FIXTURES - WOOD

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 48-R1.5						
NET SALVAGE PERCENT.. -35						
1984	2,620,356	1,063,367	1,359,350	2,178,131	33.57	64,883
1985	1,793,032	690,837	883,128	1,537,465	34.30	44,824
1986	7,555,234	2,753,883	3,520,413	6,679,153	35.04	190,615
1987	5,321,740	1,827,698	2,336,429	4,847,920	35.79	135,455
1988	4,069,787	1,311,469	1,676,510	3,817,702	36.54	104,480
1989	6,586,670	1,982,028	2,533,715	6,358,290	37.30	170,464
1990	4,297,988	1,201,653	1,536,127	4,266,157	38.06	112,090
1991	5,131,132	1,323,062	1,691,330	5,235,698	38.83	134,836
1992	2,117,466	500,251	639,493	2,219,086	39.60	56,038
1993	2,240,722	480,063	613,686	2,411,289	40.38	59,715
1994	2,627,836	505,530	646,242	2,901,337	41.16	70,489
1995	7,231,893	1,230,145	1,572,550	8,190,506	41.95	195,244
1996	3,054,164	451,894	577,676	3,545,445	42.74	82,954
1997	3,032,561	381,147	487,237	3,606,720	43.53	82,856
1998	3,169,350	327,315	418,422	3,860,201	44.33	87,079
1999	3,508,799	282,313	360,900	4,375,979	45.14	96,942
2000	3,187,136	183,722	234,860	4,067,774	45.95	88,526
2001	2,522,226	87,168	111,431	3,293,574	46.77	70,421
2002	5,571,389	63,932	81,727	7,439,648	47.59	156,328
	91,126,939	26,276,545	33,590,493	89,430,875		2,321,504

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 38.5 2.55

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 355.1 POLES AND FIXTURES - STEEL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. -15						
1953	595,686	511,382	606,038	79,001	13.94	5,667
1958	1,862,217	1,481,096	1,755,243	386,307	16.96	22,778
1961	1,357,829	1,023,722	1,213,211	348,292	18.94	18,389
1964	151,112	107,308	127,170	46,609	21.04	2,215
1965	549,324	381,687	452,336	179,387	21.77	8,240
1968	208,890	135,366	160,422	79,802	24.01	3,324
1969	715,441	452,187	535,886	286,871	24.77	11,581
1970	711,756	438,317	519,448	299,071	25.55	11,705
1971	1,735	1,040	1,233	762	26.34	29
1972	186,930	108,882	129,036	85,934	27.14	3,166
1973	851,806	481,952	571,160	408,417	27.94	14,618
1974	51,022	27,994	33,176	25,499	28.76	887
1976	49,632	25,508	30,229	26,848	30.42	883
1977	444,813	220,778	261,644	249,891	31.26	7,994
1978	9,412	4,503	5,336	5,488	32.12	171
1980	681,477	301,489	357,294	426,405	33.84	12,601
1981	78,212	33,162	39,300	50,644	34.72	1,459
1982	4,607,251	1,868,724	2,214,621	3,083,718	35.60	86,621
1983	57,585	22,284	26,409	39,814	36.49	1,091
1984	238,766	87,921	104,195	170,386	37.39	4,557
1985	157,774	55,085	65,281	116,159	38.30	3,033
1986	10,260,930	3,387,800	4,014,874	7,785,196	39.21	198,551
1987	4,080,364	1,268,830	1,503,688	3,188,731	40.13	79,460
1988	5,654,228	1,648,349	1,953,455	4,548,907	41.06	110,787
1989	6,369,486	1,732,341	2,052,993	5,271,916	41.99	125,552
1990	1,182,484	298,489	353,739	1,006,118	42.93	23,436
1991	447,684	104,203	123,491	391,346	43.87	8,921
1992	2,959,482	630,651	747,383	2,656,021	44.81	59,273
1993	337,295	65,088	77,136	310,753	45.77	6,789
1994	234,244	40,542	48,046	221,335	46.72	4,737
1995	22,678	3,466	4,108	21,972	47.69	461
1996	2,557,082	339,644	402,511	2,538,133	48.65	52,171
1997	1,177,666	132,452	156,968	1,197,348	49.62	24,130
1998	1,846,365	170,290	201,810	1,921,510	50.59	37,982
1999	5,933,176	425,765	504,573	6,318,579	51.57	122,524

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 355.1 POLES AND FIXTURES - STEEL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. -15						
2000	3,659,502	188,117	222,937	3,985,490	52.54	75,856
2001	17,540,202	542,606	643,041	19,528,191	53.52	364,877
2002	5,236,350	53,594	63,514	5,958,289	54.51	109,306
	83,067,888	18,802,614	22,282,935	73,245,140		1,625,822

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 45.1 1.96

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 355.5 POLES AND FIXTURES - SCE 500 KV LINE

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL RATE (4)	ACCRUAL-- AMOUNT (5)	EXP. (6)	-ACCRUED FACTOR (7)	DEPREC.- AMOUNT (8)
SURVIVOR CURVE.. 40-SQUARE							
NET SALVAGE PERCENT.. -30							
1983	930,308	40.00	2.50	23,257.70	20.50	.4875	453,525
				23,257.70			453,525
NET SALVAGE ADJUSTMENT				6,977.31			136,058
TOTAL	930,308			30,235.01			589,583

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 3.25

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 356 OVERHEAD CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. -35						
1946	125,388	137,230	121,006	48,268	10.41	4,637
1948	88,268	94,614	83,428	35,734	11.33	3,154
1949	19,958	21,153	18,652	8,291	11.82	701
1951	40,962	42,381	37,370	17,929	12.85	1,395
1952	129,401	132,154	116,530	58,161	13.39	4,344
1953	796,068	802,257	707,410	367,282	13.94	26,347
1954	60,400	60,030	52,933	28,607	14.51	1,972
1955	815,052	798,282	703,905	396,415	15.10	26,253
1956	145,887	140,699	124,065	72,882	15.71	4,639
1957	93,857	89,113	78,578	48,129	16.32	2,949
1958	2,775,535	2,591,406	2,285,036	1,461,936	16.96	86,199
1959	351,418	322,507	284,378	190,036	17.61	10,791
1960	114,717	103,421	91,194	63,674	18.27	3,485
1961	2,736,348	2,421,832	2,135,510	1,558,560	18.94	82,289
1962	11,954,163	10,378,425	9,151,432	6,986,688	19.63	355,919
1963	4,067,080	3,461,248	3,052,041	2,438,517	20.33	119,947
1964	1,599,053	1,333,011	1,175,415	983,307	21.04	46,735
1965	703,539	573,856	506,012	443,766	21.77	20,384
1966	183,920	146,716	129,370	118,922	22.50	5,285
1967	173,949	135,568	119,540	115,291	23.25	4,959
1968	1,164,432	885,813	781,087	790,896	24.01	32,940
1969	1,055,256	782,958	690,392	734,204	24.77	29,641
1970	864,614	625,051	551,154	616,075	25.55	24,113
1971	446,552	314,143	277,003	325,842	26.34	12,371
1972	1,304,564	892,028	786,568	974,593	27.14	35,910
1973	1,242,178	825,055	727,513	949,427	27.94	33,981
1974	3,270,899	2,106,737	1,857,667	2,558,047	28.76	88,945
1975	477,370	297,736	262,536	381,914	29.59	12,907
1976	5,499,116	3,317,699	2,925,463	4,498,344	30.42	147,875
1977	1,914,433	1,115,464	983,588	1,600,897	31.26	51,212
1978	27,073,883	15,204,693	13,407,113	23,142,629	32.12	720,505
1979	797,589	431,236	380,253	696,492	32.97	21,125
1980	1,566,356	813,479	717,305	1,397,276	33.84	41,291
1981	1,482,558	737,936	650,693	1,350,760	34.72	38,904
1982	8,839,622	4,208,942	3,711,338	8,222,152	35.60	230,959

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 356 OVERHEAD CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. -35						
1983	1,105,365	502,140	442,774	1,049,469	36.49	28,760
1984	3,153,210	1,363,038	1,201,892	3,054,942	37.39	81,705
1985	1,016,286	416,535	367,290	1,004,696	38.30	26,232
1986	23,665,041	9,172,215	8,087,827	23,859,978	39.21	608,518
1987	8,331,924	3,041,486	2,681,905	8,566,192	40.13	213,461
1988	7,528,759	2,576,530	2,271,919	7,891,906	41.06	192,204
1989	557,739	178,072	157,019	595,929	41.99	14,192
1990	3,656,126	1,083,402	955,316	3,980,454	42.93	92,720
1991	236,538	64,632	56,991	262,335	43.87	5,980
1992	2,527,977	632,386	557,622	2,855,147	44.81	63,717
1993	3,330,238	754,399	665,210	3,830,611	45.77	83,693
1994	719,957	146,277	128,983	842,959	46.72	18,043
1996	8,346,020	1,301,353	1,147,500	10,119,627	48.65	208,009
1998	3,841,831	415,955	366,779	4,819,693	50.59	95,270
1999	4,631,526	390,160	344,033	5,908,527	51.57	114,573
2000	8,704,638	525,281	463,180	11,288,081	52.54	214,847
2001	20,116,277	730,523	644,157	26,512,817	53.52	495,381
2002	20,327,580	244,236	215,361	27,226,872	54.51	499,484
	205,771,417	79,883,493	70,439,236	207,352,178		5,391,852

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 38.5 2.62

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 356.5 OVERHEAD CONDUCTORS & DEVICES- SCE 500 KV LINE

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	-ACCRUED DEPREC.- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. 40-SQUARE							
NET SALVAGE PERCENT.. -30							
1969	22,599,173	40.00	2.50	564,979.33	6.50	.8375	18,926,807
1981	54,342	40.00	2.50	1,358.55	18.50	.5375	29,209
				566,337.88			18,956,016
NET SALVAGE ADJUSTMENT				169,901.36			5,686,805
TOTAL	22,653,515			736,239.24			24,642,821

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 3.25

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 357 UNDERGROUND CONDUIT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 48-S1.5						
NET SALVAGE PERCENT.. -10						
1964	96,103	66,029	66,948	38,765	18.02	2,151
1966	202,070	134,100	135,966	86,311	19.04	4,533
1971	15,025	9,011	9,136	7,392	21.83	339
1974	3,356,916	1,871,044	1,897,082	1,795,526	23.68	75,825
1979	31,078	14,898	15,105	19,081	27.08	705
1980	5,890	2,725	2,763	3,716	27.81	134
1985	510,363	190,651	193,304	368,095	31.70	11,612
1987	48,949	16,412	16,640	37,204	33.37	1,115
1988	33,310	10,512	10,658	25,983	34.23	759
1989	316	93	94	254	35.10	7
1990	383,199	105,464	106,932	314,587	35.99	8,741
1995	1,427,350	241,322	244,680	1,325,405	40.62	32,629
1997	842,510	105,187	106,651	820,110	42.55	19,274
1998	1,055	108	110	1,051	43.53	24
1999	1,563,826	124,715	126,451	1,593,758	44.52	35,799
2000	613,977	35,052	35,540	639,835	45.51	14,059
2001	268,995	9,232	9,360	286,535	46.50	6,162
2002	1,043,430	11,937	12,103	1,135,670	47.50	23,909
	10,444,362	2,948,492	2,989,523	8,499,278		237,777

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 35.7 2.28

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 358 UNDERGROUND CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 40-R3						
NET SALVAGE PERCENT.. -10						
1964	25,243	21,658	20,317	7,450	8.80	847
1966	356,731	295,676	277,365	115,039	9.86	11,667
1968	25,252	20,130	18,883	8,894	11.01	808
1973	107,606	76,193	71,474	46,893	14.25	3,291
1974	5,465,773	3,764,934	3,531,772	2,480,578	14.95	165,925
1977	183,546	115,326	108,184	93,717	17.15	5,465
1979	685,054	401,421	376,561	376,998	18.69	20,171
1980	21,258	11,996	11,253	12,131	19.48	623
1984	108,470	51,366	48,185	71,132	22.78	3,123
1985	1,162,089	523,080	490,686	787,612	23.63	33,331
1987	135,124	54,356	50,990	97,646	25.37	3,849
1988	96,333	36,399	34,145	71,821	26.26	2,735
1989	1,258,607	444,691	417,151	967,317	27.15	35,629
1990	1,292,110	424,264	397,989	1,023,332	28.06	36,469
1992	51,869	14,407	13,515	43,541	29.90	1,456
1993	7,344	1,852	1,737	6,341	30.83	206
1994	177,282	40,114	37,630	157,380	31.77	4,954
1995	462,924	92,677	86,938	422,278	32.72	12,906
1996	20,555	3,572	3,351	19,260	33.68	572
1997	239,498	35,302	33,116	230,332	34.64	6,649
1998	7,765	940	882	7,660	35.60	215
1999	976,032	92,011	86,313	987,322	36.57	26,998
2000	2,298,219	154,716	145,134	2,382,907	37.55	63,460
2001	1,193,419	48,178	45,194	1,267,567	38.53	32,898
2002	2,193,151	29,432	27,609	2,384,857	39.51	60,361
	18,551,254	6,754,691	6,336,374	14,070,005		534,608

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 26.3 2.88

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 361 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 45-R2.5						
NET SALVAGE PERCENT.. -10						
1942	6,560	6,313	6,476	740	5.63	131
1945	2,474	2,335	2,395	326	6.39	51
1949	6,756	6,190	6,349	1,083	7.52	144
1950	14,792	13,437	13,783	2,488	7.84	317
1952	38,263	34,122	35,001	7,088	8.52	832
1953	7,082	6,253	6,414	1,376	8.88	155
1954	6,972	6,091	6,248	1,421	9.26	153
1955	36,586	31,596	32,410	7,835	9.67	810
1956	32,296	27,561	28,271	7,255	10.09	719
1957	75,227	63,386	65,019	17,731	10.53	1,684
1958	51,167	42,550	43,646	12,638	10.98	1,151
1959	32,313	26,491	27,173	8,371	11.46	730
1960	88,491	71,467	73,308	24,032	11.96	2,009
1961	33,886	26,938	27,632	9,643	12.48	773
1962	100,842	78,857	80,888	30,038	13.01	2,309
1963	45,042	34,603	35,494	14,052	13.57	1,036
1964	46,463	35,051	35,954	15,155	14.14	1,072
1965	28,746	21,271	21,819	9,802	14.73	665
1966	13,834	10,033	10,291	4,926	15.33	321
1967	97,683	69,371	71,158	36,293	15.95	2,275
1968	20,699	14,374	14,744	8,025	16.59	484
1969	128,436	87,155	89,400	51,880	17.24	3,009
1970	258,669	171,348	175,762	108,774	17.90	6,077
1971	53,929	34,828	35,725	23,597	18.58	1,270
1972	209,669	131,878	135,275	95,361	19.27	4,949
1973	293,993	179,871	184,505	138,887	19.97	6,955
1974	332,514	197,586	202,676	163,089	20.69	7,883
1975	98,984	57,054	58,524	50,358	21.42	2,351
1976	110,230	61,548	63,134	58,119	22.16	2,623
1977	191,481	103,398	106,062	104,567	22.91	4,564
1978	259,921	135,523	139,014	146,899	23.67	6,206
1979	822,823	413,543	424,197	480,908	24.44	19,677
1980	604,248	292,190	299,717	364,956	25.22	14,471
1981	298,432	138,466	142,033	186,242	26.02	7,158
1982	634,829	282,118	289,386	408,926	26.82	15,247

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 361 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-R2.5						
NET SALVAGE PERCENT.. -10						
1983	628,350	266,797	273,670	417,515	27.63	15,111
1984	443,249	179,330	183,950	303,624	28.45	10,672
1985	676,450	259,912	266,608	477,487	29.28	16,308
1986	2,064,066	750,845	770,188	1,500,285	30.12	49,810
1987	1,381,750	473,913	486,122	1,033,803	30.97	33,381
1988	1,517,392	488,555	501,141	1,167,990	31.83	36,695
1989	1,073,422	323,057	331,380	849,384	32.69	25,983
1990	1,528,605	427,092	438,095	1,243,371	33.57	37,038
1991	801,607	206,686	212,011	669,757	34.45	19,441
1992	215,159	50,861	52,171	184,504	35.33	5,222
1993	797,292	170,931	175,335	701,686	36.23	19,368
1994	1,121,491	215,764	221,322	1,012,318	37.13	27,264
1995	1,466,795	249,927	256,366	1,357,109	38.03	35,685
1996	1,054,351	155,875	159,891	999,895	38.95	25,671
1997	481,768	60,520	62,079	467,866	39.86	11,738
1998	1,630,823	167,910	172,236	1,621,669	40.79	39,757
1999	1,586,234	127,549	130,834	1,614,023	41.71	38,696
2000	572,456	32,870	33,717	595,985	42.65	13,974
2001	528,566	18,199	18,668	562,755	43.59	12,910
2002	1,160,884	13,281	13,623	1,263,349	44.53	28,371
	25,815,042	7,554,670	7,749,290	20,647,256		623,356

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 33.1 2.41

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 362 STATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 38-S0						
NET SALVAGE PERCENT.. 0						
1929	9,640	9,407	9,640			
1935	35,712	32,762	35,712			
1938	1,270	1,127	1,270			
1939	12,143	10,657	12,143			
1940	1,053	913	1,053			
1941	5,369	4,603	5,369			
1942	104,403	88,440	104,403			
1943	3,397	2,843	3,397			
1945	80,545	65,749	80,545			
1946	10,283	8,289	10,283			
1947	36,496	29,033	36,496			
1948	259,920	204,115	259,920			
1949	188,317	145,889	188,317			
1950	137,358	104,928	137,358			
1951	54,517	41,073	54,517			
1952	225,561	167,502	225,561			
1953	126,409	92,506	126,409			
1954	262,735	189,458	262,735			
1955	424,231	301,204	424,231			
1956	339,426	237,327	339,426			
1957	254,786	175,344	254,786			
1958	337,056	228,120	337,056			
1959	226,691	150,931	226,691			
1960	479,854	314,064	479,854			
1961	175,577	112,878	175,577			
1962	959,099	605,767	959,099			
1963	454,572	281,835	452,560	2,012	14.44	139
1964	269,185	163,718	262,892	6,293	14.89	423
1965	266,554	159,026	255,358	11,196	15.33	730
1966	544,078	318,122	510,828	33,250	15.78	2,107
1967	455,823	261,004	419,110	36,713	16.24	2,261
1968	570,239	319,619	513,232	57,007	16.70	3,414
1969	984,204	539,737	866,688	117,516	17.16	6,848
1970	2,170,475	1,163,592	1,868,450	302,025	17.63	17,131
1971	826,357	432,763	694,914	131,443	18.10	7,262

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 362 STATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 38-S0						
NET SALVAGE PERCENT.. 0						
1972	2,062,235	1,054,008	1,692,485	369,750	18.58	19,900
1973	1,681,722	837,834	1,345,361	336,361	19.07	17,638
1974	2,211,380	1,073,183	1,723,275	488,105	19.56	24,954
1975	1,021,052	482,345	774,531	246,521	20.05	12,295
1976	929,351	426,758	685,271	244,080	20.55	11,877
1977	1,779,374	793,245	1,273,762	505,612	21.06	24,008
1978	2,657,712	1,149,195	1,845,332	812,380	21.57	37,662
1979	4,222,966	1,768,156	2,839,235	1,383,731	22.09	62,641
1980	2,239,337	906,260	1,455,237	784,100	22.62	34,664
1981	2,560,854	1,000,013	1,605,781	955,073	23.16	41,238
1982	4,693,455	1,766,147	2,836,009	1,857,446	23.70	78,373
1983	3,627,985	1,312,605	2,107,729	1,520,256	24.25	62,691
1984	4,897,749	1,698,539	2,727,447	2,170,302	24.82	87,442
1985	7,125,197	2,364,140	3,796,243	3,328,954	25.39	131,113
1986	6,657,430	2,107,742	3,384,529	3,272,901	25.97	126,026
1987	5,938,319	1,788,028	2,871,145	3,067,174	26.56	115,481
1988	10,600,431	3,024,303	4,856,306	5,744,125	27.16	211,492
1989	4,563,279	1,227,066	1,970,374	2,592,905	27.78	93,337
1990	4,463,240	1,126,522	1,808,925	2,654,315	28.41	93,429
1991	4,965,704	1,169,423	1,877,813	3,087,891	29.05	106,296
1992	4,505,211	983,037	1,578,522	2,926,689	29.71	98,509
1993	5,268,282	1,056,291	1,696,150	3,572,132	30.38	117,582
1994	3,635,828	662,084	1,063,148	2,572,680	31.08	82,776
1995	5,307,172	867,192	1,392,503	3,914,669	31.79	123,142
1996	7,972,575	1,149,645	1,846,055	6,126,520	32.52	188,392
1997	7,553,299	938,120	1,506,396	6,046,903	33.28	181,698
1998	11,457,184	1,188,110	1,907,820	9,549,364	34.06	280,369
1999	19,247,683	1,586,009	2,546,751	16,700,932	34.87	478,948
2000	14,769,021	890,572	1,430,046	13,338,975	35.71	373,536
2001	22,738,273	843,590	1,354,604	21,383,669	36.59	584,413
2002	19,710,942	254,271	408,298	19,302,644	37.51	514,600
	212,357,577	44,458,778	70,802,963	141,554,614		4,456,837

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 31.8 2.10

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 364 POLES, TOWERS AND FIXTURES - WOOD

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 38-R0.5						
NET SALVAGE PERCENT.. -10						
1955	1,061,536	795,547	1,145,658	22,032	12.11	1,819
1956	609,877	449,479	647,290	23,575	12.54	1,880
1957	2,286,122	1,656,455	2,385,442	129,292	12.97	9,969
1958	516,054	367,332	528,991	38,668	13.41	2,884
1960	1,480,329	1,015,121	1,461,864	166,498	14.31	11,635
1961	537,798	361,809	521,037	70,541	14.76	4,779
1962	514,543	339,146	488,400	77,597	15.23	5,095
1963	582,756	376,350	541,977	99,055	15.69	6,313
1964	579,433	366,173	527,322	110,054	16.17	6,806
1965	581,563	359,394	517,559	122,160	16.65	7,337
1966	549,228	331,800	477,821	126,330	17.13	7,375
1967	780,231	460,282	662,847	195,407	17.62	11,090
1968	501,985	288,902	416,045	136,139	18.12	7,513
1969	2,078,633	1,165,427	1,678,318	608,178	18.63	32,645
1970	1,158,173	632,281	910,541	363,449	19.14	18,989
1971	1,076,716	571,941	823,646	360,742	19.65	18,358
1972	1,256,658	648,172	933,425	448,899	20.18	22,245
1973	1,121,436	561,649	808,824	424,756	20.70	20,520
1974	1,895,214	919,577	1,324,273	760,462	21.24	35,803
1975	2,603,441	1,222,263	1,760,167	1,103,618	21.78	50,671
1976	3,991,279	1,811,482	2,608,695	1,781,712	22.32	79,826
1977	2,270,671	994,599	1,432,311	1,065,427	22.87	46,586
1978	4,416,862	1,862,767	2,682,550	2,175,998	23.43	92,872
1979	2,709,248	1,098,790	1,582,355	1,397,818	23.99	58,267
1980	3,076,680	1,197,721	1,724,825	1,659,523	24.55	67,598
1981	7,394,252	2,756,503	3,969,609	4,164,068	25.12	165,767
1982	2,847,512	1,014,540	1,461,028	1,671,235	25.69	65,054
1983	5,034,560	1,709,586	2,461,956	3,076,060	26.27	117,094
1984	5,334,456	1,721,642	2,479,317	3,388,585	26.85	126,204
1985	12,100,863	3,699,113	5,327,051	7,983,898	27.44	290,958
1986	7,171,563	2,071,578	2,983,256	4,905,463	28.02	175,070
1987	18,026,140	4,899,685	7,055,981	12,772,773	28.61	446,444
1988	5,650,710	1,439,575	2,073,116	4,142,665	29.20	141,872
1989	18,361,850	4,358,736	6,276,967	13,921,068	29.80	467,150
1990	20,128,367	4,434,883	6,386,625	15,754,579	30.39	518,413

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 364 POLES, TOWERS AND FIXTURES - WOOD

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 38-R0.5						
NET SALVAGE PERCENT.. -10						
1991	10,263,211	2,082,919	2,999,588	8,289,944	30.99	267,504
1992	12,131,711	2,251,282	3,242,046	10,102,836	31.59	319,811
1993	9,762,697	1,641,988	2,364,608	8,374,359	32.19	260,154
1994	25,514,836	3,847,892	5,541,306	22,525,014	32.79	686,948
1995	20,204,944	2,691,501	3,876,000	18,349,438	33.40	549,384
1996	16,051,664	1,853,967	2,669,877	14,986,953	34.01	440,663
1997	12,359,825	1,212,746	1,746,462	11,849,346	34.61	342,368
1998	11,171,700	895,859	1,290,117	10,998,753	35.23	312,198
1999	8,306,946	519,018	747,432	8,390,209	35.84	234,102
2000	5,231,312	234,781	338,105	5,416,338	36.45	148,596
2001	3,444,219	92,822	133,672	3,654,969	37.07	98,596
2002	9,470,907	85,428	123,024	10,294,974	37.69	273,149
	284,200,711	65,370,503	94,139,326	218,481,457		7,076,374

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 30.9 2.49

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 364.1 POLES, TOWERS AND FIXTURES - STEEL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. -5						
1955	23,948	19,452	24,656	489	11.32	43
1956	5,912	4,736	6,003	205	11.85	17
1957	32,139	25,384	32,175	1,571	12.39	127
1958	9,253	7,197	9,122	594	12.96	46
1960	8,097	6,098	7,729	773	14.14	55
1961	6,616	4,897	6,207	740	14.75	50
1962	8,463	6,151	7,797	1,089	15.39	71
1963	8,103	5,780	7,326	1,182	16.03	74
1964	9,814	6,863	8,699	1,606	16.70	96
1965	11,054	7,572	9,598	2,009	17.38	116
1966	8,781	5,888	7,463	1,757	18.07	97
1967	8,895	5,834	7,395	1,945	18.77	104
1968	6,895	4,418	5,600	1,640	19.49	84
1969	8,941	5,592	7,088	2,300	20.22	114
1970	17,748	10,820	13,715	4,920	20.97	235
1971	15,074	8,952	11,347	4,481	21.72	206
1972	15,382	8,886	11,263	4,888	22.49	217
1973	11,961	6,717	8,514	4,045	23.26	174
1974	19,255	10,493	13,300	6,918	24.05	288
1975	29,743	15,709	19,911	11,319	24.85	455
1976	35,081	17,931	22,728	14,107	25.66	550
1977	18,408	9,092	11,524	7,804	26.48	295
1978	49,502	23,587	29,897	22,080	27.31	808
1979	27,935	12,818	16,247	13,085	28.15	465
1980	27,435	12,099	15,336	13,471	29.00	465
1981	71,417	30,205	38,285	36,703	29.86	1,229
1982	30,992	12,542	15,897	16,645	30.73	542
1983	53,383	20,627	26,145	29,907	31.60	946
1984	36,637	13,472	17,076	21,393	32.49	658
1985	126,261	44,068	55,857	76,717	33.38	2,298
1986	93,732	30,943	39,221	59,198	34.28	1,727
1987	237,562	73,884	93,649	155,791	35.19	4,427
1988	112,060	32,687	41,431	76,232	36.11	2,111
1989	322,769	87,913	111,431	227,476	37.03	6,143
1990	244,356	61,783	78,311	178,263	37.96	4,696

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 364.1 POLES, TOWERS AND FIXTURES - STEEL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. -5						
1991	79,410	18,527	23,483	59,898	38.89	1,540
1992	160,338	34,210	43,362	124,993	39.84	3,137
1993	58,167	11,262	14,275	46,800	40.78	1,148
1994	407,345	70,658	89,560	338,152	41.74	8,101
1995	366,272	56,226	71,267	313,319	42.69	7,339
1996	12,311,202	1,639,113	2,077,606	10,849,156	43.66	248,492
1997	254,341	28,735	36,422	230,636	44.62	5,169
1998	1,700,832	157,514	199,652	1,586,222	45.59	34,793
1999	5,616,943	404,588	512,823	5,384,967	46.57	115,632
2000	11,387,333	588,270	745,643	11,211,057	47.54	235,824
2001	8,636,118	268,411	340,216	8,727,708	48.52	179,879
2002	11,187,746	115,122	145,919	11,601,214	49.51	234,321
	53,919,651	4,053,726	5,138,171	51,477,465		1,105,404

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 46.6 2.05

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 365 OVERHEAD CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 53-01						
NET SALVAGE PERCENT.. -10						
1955	525,552	259,050	546,536	31,571	29.25	1,079
1956	543,693	262,370	553,540	44,522	29.75	1,497
1957	1,010,278	476,972	1,006,301	105,005	30.25	3,471
1958	473,279	218,551	461,092	59,515	30.75	1,935
1960	839,406	370,170	780,974	142,373	31.75	4,484
1961	348,664	150,152	316,786	66,744	32.25	2,070
1962	437,724	183,980	388,155	93,341	32.75	2,850
1963	491,327	201,375	424,855	115,605	33.25	3,477
1964	626,212	250,184	527,831	161,002	33.75	4,770
1965	536,329	208,729	440,370	149,592	34.25	4,368
1966	542,204	205,349	433,239	163,185	34.75	4,696
1967	1,002,098	369,163	778,849	323,459	35.25	9,176
1968	728,405	260,805	550,239	251,007	35.75	7,021
1969	1,728,066	600,676	1,267,288	633,585	36.25	17,478
1970	1,296,295	437,188	922,366	503,559	36.75	13,702
1971	1,220,183	398,902	841,592	500,609	37.25	13,439
1972	1,451,628	459,397	969,222	627,569	37.75	16,624
1973	1,125,809	344,644	727,120	511,270	38.25	13,367
1974	1,152,676	340,950	719,326	548,618	38.75	14,158
1975	1,882,680	537,204	1,133,377	937,571	39.25	23,887
1976	2,747,140	755,464	1,593,855	1,427,999	39.75	35,925
1977	2,045,047	541,242	1,141,896	1,107,656	40.25	27,519
1978	3,092,105	786,044	1,658,372	1,742,944	40.75	42,772
1979	2,147,116	523,617	1,104,711	1,257,117	41.25	30,476
1980	2,140,273	499,818	1,054,501	1,299,799	41.75	31,133
1981	6,175,955	1,377,732	2,906,698	3,886,853	42.25	91,997
1982	2,669,099	567,824	1,197,978	1,738,031	42.75	40,656
1983	5,251,409	1,062,885	2,242,443	3,534,107	43.25	81,713
1984	4,251,023	815,984	1,721,539	2,954,586	43.75	67,533
1985	473,253	85,947	181,328	339,250	44.25	7,667
1986	5,062,845	867,113	1,829,409	3,739,721	44.75	83,569
1987	2,137,150	343,696	725,120	1,625,745	45.25	35,928
1988	14,648,911	2,204,368	4,650,710	11,463,092	45.75	250,559
1989	18,131,924	2,541,008	5,360,943	14,584,173	46.25	315,333
1990	11,533,361	1,495,762	3,155,714	9,530,983	46.75	203,871

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 365 OVERHEAD CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 53-01						
NET SALVAGE PERCENT.. -10						
1991	9,730,474	1,161,332	2,450,143	8,253,378	47.25	174,675
1992	4,550,521	496,052	1,046,556	3,959,017	47.75	82,911
1993	14,895,594	1,468,110	3,097,374	13,287,779	48.25	275,394
1994	7,910,711	697,883	1,472,373	7,229,409	48.75	148,296
1995	8,634,912	672,487	1,418,793	8,079,610	49.25	164,053
1996	8,898,741	600,042	1,265,951	8,522,664	49.75	171,310
1997	7,386,343	421,686	889,660	7,235,317	50.25	143,986
1998	9,324,946	435,941	919,735	9,337,706	50.75	183,994
1999	10,367,806	376,351	794,014	10,610,573	51.25	207,036
2000	12,601,069	327,124	690,156	13,171,020	51.75	254,512
2001	13,638,092	213,027	449,438	14,552,463	52.25	278,516
2002	10,448,452	54,018	113,966	11,379,331	52.75	215,722
	218,856,780	27,928,368	58,922,434	181,820,025		3,810,605

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 47.7 1.74

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 366 UNDERGROUND CONDUIT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R1.5						
NET SALVAGE PERCENT.. -5						
1956	670,881	422,373	470,235	234,190	22.02	10,635
1957	17,412	10,779	12,000	6,283	22.57	278
1958	13,047	7,939	8,839	4,860	23.13	210
1960	16,994	9,964	11,093	6,751	24.29	278
1961	943,757	542,641	604,132	386,813	24.88	15,547
1962	45,785	25,811	28,736	19,338	25.47	759
1963	121,575	67,120	74,726	52,928	26.08	2,029
1964	422,425	228,293	254,163	189,383	26.69	7,096
1965	129,504	68,438	76,193	59,786	27.32	2,188
1966	111,690	57,676	64,212	53,063	27.95	1,898
1967	811,950	409,393	455,784	396,764	28.59	13,878
1968	734,600	361,368	402,317	369,013	29.23	12,624
1969	256,328	122,864	136,787	132,357	29.89	4,428
1970	865,918	404,146	449,943	459,271	30.55	15,033
1971	802,661	364,508	405,813	436,981	31.21	14,001
1972	626,048	276,219	307,519	349,831	31.89	10,970
1973	426,546	182,643	203,340	244,533	32.57	7,508
1974	529,817	219,908	244,827	311,481	33.26	9,365
1975	721,226	289,814	322,655	434,632	33.95	12,802
1976	375,510	145,886	162,417	231,869	34.65	6,692
1977	566,902	212,563	236,650	358,597	35.36	10,141
1978	914,914	330,659	368,128	592,532	36.07	16,427
1979	806,133	280,256	312,014	534,426	36.79	14,526
1980	1,387,862	463,407	515,919	941,336	37.51	25,096
1981	1,645,882	526,575	586,245	1,141,931	38.24	29,862
1982	1,551,508	474,552	528,327	1,100,756	38.98	28,239
1983	1,938,483	565,843	629,963	1,405,444	39.71	35,393
1984	2,305,965	640,182	712,726	1,708,537	40.46	42,228
1985	807,659	212,604	236,696	611,346	41.21	14,835
1986	2,068,865	515,054	573,418	1,598,890	41.96	38,105
1987	3,502,542	821,224	914,283	2,763,386	42.72	64,686
1988	8,270,510	1,819,305	2,025,463	6,658,573	43.48	153,141
1989	5,049,619	1,037,091	1,154,611	4,147,489	44.24	93,750
1990	14,180,385	2,703,916	3,010,316	11,879,088	45.01	263,921
1991	12,390,708	2,179,216	2,426,158	10,584,085	45.79	231,144

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 366 UNDERGROUND CONDUIT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R1.5						
NET SALVAGE PERCENT.. -5						
1992	6,821,566	1,098,033	1,222,459	5,940,185	46.57	127,554
1993	57,372,387	8,379,524	9,329,067	50,911,939	47.35	1,075,226
1994	31,173,609	4,081,716	4,544,244	28,188,045	48.14	585,543
1995	25,028,025	2,901,249	3,230,010	23,049,416	48.93	471,069
1996	33,588,584	3,385,729	3,769,390	31,498,623	49.72	633,520
1997	32,635,859	2,792,814	3,109,288	31,158,364	50.52	616,753
1998	34,572,458	2,421,282	2,695,655	33,605,426	51.33	654,694
1999	34,476,600	1,882,422	2,095,732	34,104,698	52.14	654,099
2000	32,987,032	1,291,937	1,438,336	33,198,048	52.95	626,970
2001	29,420,538	691,971	770,383	30,121,182	53.77	560,186
2002	41,614,847	327,717	364,853	43,330,736	54.59	793,749
	425,723,116	46,254,624	51,496,065	395,513,205		8,009,076
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT..					49.4	1.88

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 367 UNDERGROUND CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 29-L1						
NET SALVAGE PERCENT.. -5						
1955	8,367	6,198	7,540	1,245	8.54	146
1956	1,649,430	1,207,482	1,468,877	263,025	8.78	29,957
1958	54,269	38,765	47,157	9,825	9.27	1,060
1960	49,763	34,648	42,149	10,102	9.77	1,034
1961	2,905,950	1,997,041	2,429,359	621,889	10.02	62,065
1962	2,123	1,439	1,751	478	10.28	46
1963	345,070	230,510	280,411	81,913	10.55	7,764
1964	1,329,952	875,853	1,065,457	330,993	10.81	30,619
1965	1,877,927	1,218,390	1,482,146	489,677	11.08	44,195
1966	871,705	556,771	677,300	237,990	11.36	20,950
1967	2,898,481	1,821,782	2,216,160	827,245	11.64	71,069
1968	2,056,329	1,270,873	1,545,991	613,154	11.93	51,396
1969	958,007	582,420	708,502	297,405	12.21	24,357
1970	4,711,237	2,812,750	3,421,652	1,525,147	12.51	121,914
1971	740,165	433,896	527,826	249,347	12.81	19,465
1972	1,357,217	780,800	949,827	475,251	13.11	36,251
1973	1,315,115	741,804	902,389	478,482	13.42	35,654
1974	1,221,221	674,737	820,804	461,478	13.74	33,586
1975	2,709,042	1,465,483	1,782,730	1,061,764	14.06	75,517
1976	1,788,274	945,979	1,150,764	726,924	14.39	50,516
1977	2,305,925	1,192,209	1,450,298	970,923	14.72	65,959
1978	3,660,321	1,847,492	2,247,436	1,595,901	15.06	105,970
1979	3,177,191	1,564,608	1,903,313	1,432,738	15.40	93,035
1980	6,022,821	2,889,418	3,514,917	2,809,045	15.75	178,352
1981	8,604,272	4,015,829	4,885,173	4,149,313	16.11	257,561
1982	6,268,592	2,844,092	3,459,779	3,122,243	16.47	189,572
1983	6,048,984	2,661,251	3,237,357	3,114,076	16.85	184,812
1984	11,801,518	5,033,465	6,123,106	6,268,488	17.22	364,024
1985	16,576,699	6,836,894	8,316,941	9,088,593	17.61	516,104
1986	12,404,905	4,936,532	6,005,189	7,019,961	18.01	389,781
1987	21,531,581	8,256,500	10,043,862	12,564,298	18.41	682,471
1988	31,805,293	11,698,464	14,230,941	19,164,617	18.84	1,017,230
1989	37,332,688	13,123,933	15,964,994	23,234,328	19.29	1,204,475
1990	47,122,287	15,729,184	19,134,228	30,344,173	19.78	1,534,084
1991	26,581,373	8,373,132	10,185,743	17,724,699	20.30	873,138

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 367 UNDERGROUND CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 29-L1						
NET SALVAGE PERCENT.. -5						
1992	42,238,566	12,462,489	15,160,361	29,190,133	20.85	1,400,006
1993	30,989,902	8,483,021	10,319,420	22,219,977	21.44	1,036,380
1994	29,203,240	7,328,553	8,915,034	21,748,368	22.07	985,427
1995	33,737,546	7,633,963	9,286,559	26,137,864	22.75	1,148,917
1996	44,856,471	8,995,965	10,943,406	36,155,889	23.46	1,541,172
1997	45,086,075	7,801,694	9,490,600	37,849,779	24.22	1,562,749
1998	66,961,056	9,674,533	11,768,870	58,540,239	25.01	2,340,673
1999	56,403,481	6,431,689	7,824,017	51,399,638	25.85	1,988,381
2000	62,005,998	5,143,398	6,256,838	58,849,460	26.71	2,203,274
2001	60,246,574	3,030,101	3,686,056	59,572,847	27.61	2,157,655
2002	63,682,780	1,083,244	1,317,744	65,549,175	28.53	2,297,553
	805,505,783	186,769,274	227,200,974	618,580,099		27,036,316
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT..					22.9	3.36

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 368 LINE TRANSFORMERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 36-R3						
NET SALVAGE PERCENT.. -5						
1940	1,566	1,644	1,644			
1941	3,997	4,197	4,197			
1942	3,525	3,684	3,701			
1943	5,547	5,770	5,824			
1944	7,785	8,047	8,174			
1945	18,985	19,498	19,934			
1946	33,973	34,651	35,672			
1947	82,390	83,430	86,510			
1948	137,267	138,048	144,130			
1949	112,783	112,572	118,422			
1950	173,341	171,743	182,008			
1951	449,398	441,857	471,868			
1952	357,352	348,654	375,220			
1953	522,556	505,996	548,684			
1954	574,406	551,861	598,938	4,188	3.06	1,369
1955	695,031	662,497	719,012	10,771	3.32	3,244
1956	1,069,238	1,010,767	1,096,992	25,708	3.59	7,161
1957	1,005,446	942,545	1,022,950	32,768	3.86	8,489
1958	1,694,115	1,574,256	1,708,551	70,270	4.14	16,973
1959	1,265,057	1,164,795	1,264,160	64,150	4.43	14,481
1960	1,279,836	1,166,846	1,266,386	77,442	4.74	16,338
1961	1,089,555	983,182	1,067,054	76,979	5.06	15,213
1962	1,360,226	1,213,573	1,317,099	111,138	5.41	20,543
1963	990,813	873,273	947,769	92,585	5.78	16,018
1964	1,100,862	957,783	1,039,488	116,417	6.17	18,868
1965	795,148	682,034	740,216	94,689	6.59	14,369
1966	871,080	736,006	798,792	115,842	7.03	16,478
1967	993,990	826,289	896,777	146,913	7.50	19,588
1968	1,569,152	1,281,511	1,390,833	256,777	8.00	32,097
1969	1,688,089	1,352,944	1,468,359	304,134	8.52	35,696
1970	2,824,018	2,218,280	2,407,514	557,705	9.07	61,489
1971	3,207,429	2,465,903	2,676,261	691,539	9.64	71,736
1972	3,102,295	2,331,002	2,529,852	727,558	10.24	71,051
1973	4,656,244	3,414,028	3,705,268	1,183,788	10.86	109,004
1974	4,512,153	3,223,099	3,498,051	1,239,710	11.51	107,707

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 368 LINE TRANSFORMERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 36-R3						
NET SALVAGE PERCENT.. -5						
1975	3,920,881	2,724,993	2,957,453	1,159,472	12.17	95,273
1976	2,996,691	2,022,587	2,195,127	951,399	12.86	73,981
1977	6,273,266	4,105,633	4,455,871	2,131,058	13.56	157,158
1978	8,811,719	5,581,916	6,058,091	3,194,214	14.28	223,684
1979	10,407,641	6,368,852	6,912,158	4,015,865	15.02	267,368
1980	10,857,562	6,403,627	6,949,900	4,450,540	15.78	282,037
1981	15,091,596	8,561,689	9,292,059	6,554,117	16.55	396,019
1982	12,545,383	6,831,337	7,414,096	5,758,556	17.33	332,288
1983	13,136,129	6,842,675	7,426,401	6,366,534	18.14	350,967
1984	24,606,791	12,236,465	13,280,318	12,556,813	18.95	662,629
1985	23,155,117	10,955,381	11,889,949	12,422,924	19.78	628,055
1986	21,092,848	9,454,764	10,261,319	11,886,171	20.63	576,160
1987	19,528,462	8,269,620	8,975,075	11,529,810	21.48	536,770
1988	17,120,921	6,816,866	7,398,391	10,578,576	22.35	473,314
1989	19,265,021	7,174,968	7,787,041	12,441,231	23.23	535,567
1990	18,298,077	6,340,284	6,881,153	12,331,828	24.12	511,270
1991	9,411,162	3,010,960	3,267,815	6,613,905	25.03	264,239
1992	12,406,044	3,639,561	3,950,040	9,076,306	25.94	349,896
1993	13,565,459	3,616,484	3,924,995	10,318,737	26.86	384,167
1994	13,616,404	3,256,908	3,534,744	10,762,480	27.80	387,140
1995	15,827,146	3,351,952	3,637,896	12,980,607	28.74	451,656
1996	20,347,987	3,745,352	4,064,856	17,300,530	29.69	582,706
1997	2,984,662	466,637	506,444	2,627,451	30.64	85,752
1998	40,187,171	5,143,757	5,582,554	36,613,976	31.61	1,158,304
1999	20,096,101	2,010,916	2,182,461	18,918,445	32.57	580,855
2000	24,462,530	1,749,193	1,898,411	23,787,246	33.55	709,009
2001	22,407,671	959,945	1,041,835	22,486,220	34.53	651,208
2002	26,161,963	373,593	405,463	27,064,598	35.51	762,168
	486,837,053	173,529,180	188,298,226	322,880,680		13,147,552

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 24.6 2.70

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 369 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 37-S2						
NET SALVAGE PERCENT.. -10						
1955	1,004,228	930,558	1,104,651			
1956	440,917	404,643	485,009			
1957	264,412	240,303	290,853			
1958	119,964	107,917	130,883	1,077	6.74	160
1959	72,487	64,546	78,282	1,454	7.05	206
1960	415,850	366,177	444,104	13,331	7.38	1,806
1961	162,414	141,388	171,477	7,178	7.72	930
1962	88,130	75,800	91,931	5,012	8.07	621
1963	147,238	125,067	151,683	10,279	8.43	1,219
1964	104,925	87,971	106,692	8,726	8.80	992
1965	157,080	129,919	157,568	15,220	9.18	1,658
1966	48,509	39,545	47,961	5,399	9.58	564
1967	263,485	211,578	256,605	33,229	9.99	3,326
1968	123,514	97,633	118,411	17,454	10.41	1,677
1969	365,749	284,363	344,879	57,445	10.85	5,294
1970	228,747	174,701	211,880	39,742	11.31	3,514
1971	301,867	226,328	274,494	57,560	11.78	4,886
1972	420,969	309,513	375,382	87,684	12.27	7,146
1973	424,966	306,001	371,122	96,341	12.78	7,538
1974	662,026	466,430	565,693	162,536	13.30	12,221
1975	1,153,413	793,860	962,804	305,950	13.85	22,090
1976	821,989	551,826	669,262	234,926	14.42	16,292
1977	448,582	293,252	355,660	137,780	15.01	9,179
1978	4,705,970	2,991,020	3,627,549	1,549,018	15.62	99,169
1979	2,051,070	1,265,264	1,534,529	721,648	16.25	44,409
1980	2,593,107	1,548,863	1,878,482	973,936	16.91	57,595
1981	3,818,697	2,203,617	2,672,576	1,527,991	17.59	86,867
1982	3,179,488	1,767,605	2,143,775	1,353,662	18.30	73,971
1983	5,756,211	3,075,371	3,729,851	2,601,981	19.03	136,730
1984	8,525,144	4,364,362	5,293,157	4,084,501	19.78	206,497
1985	11,121,513	5,435,417	6,592,147	5,641,517	20.56	274,393
1986	4,850,431	2,253,704	2,733,322	2,602,152	21.37	121,767
1987	7,748,266	3,409,237	4,134,768	4,388,325	22.20	197,672
1988	7,946,346	3,295,350	3,996,645	4,744,336	23.05	205,828
1989	13,157,398	5,116,254	6,205,061	8,268,077	23.92	345,655

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 369 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 37-S2						
NET SALVAGE PERCENT.. -10						
1990	9,371,389	3,393,567	4,115,764	6,192,764	24.82	249,507
1991	7,292,022	2,443,265	2,963,224	5,058,000	25.73	196,580
1992	6,224,768	1,913,805	2,321,088	4,526,157	26.66	169,773
1993	14,479,941	4,042,510	4,902,810	11,025,125	27.61	399,316
1994	12,197,476	3,056,444	3,706,896	9,710,328	28.57	339,878
1995	21,617,789	4,793,961	5,814,180	17,965,388	29.54	608,172
1996	9,381,525	1,806,976	2,191,525	8,128,153	30.52	266,322
1997	4,666,464	761,754	923,866	4,209,244	31.51	133,584
1998	14,467,246	1,935,139	2,346,963	13,567,008	32.50	417,446
1999	21,374,675	2,224,249	2,697,599	20,814,544	33.50	621,330
2000	9,352,318	695,438	843,436	9,444,114	34.50	273,742
2001	15,505,612	690,775	837,781	16,218,392	35.50	456,856
2002	12,778,485	189,761	230,145	13,826,189	36.50	378,800
	242,404,812	71,103,027	86,204,425	180,440,873		6,463,178

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 27.9 2.67

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 370 METERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 23-R1						
NET SALVAGE PERCENT.. 0						
1922	36	36	36			
1929	2,120	2,120	2,120			
1930	356	356	356			
1931	491	491	491			
1933	321	321	321			
1937	342	342	342			
1938	628	628	628			
1939	281	281	281			
1940	788	788	788			
1941	3,060	3,060	3,060			
1942	1,464	1,464	1,464			
1943	1,982	1,982	1,982			
1944	2,596	2,596	2,596			
1945	4,531	4,531	4,531			
1946	5,980	5,980	5,980			
1947	5,064	5,064	5,064			
1948	2,228	2,228	2,228			
1949	8,078	8,078	8,078			
1950	14,865	14,865	14,865			
1951	107,821	107,821	107,821			
1952	25,024	25,024	25,024			
1953	33,308	33,308	33,308			
1954	40,421	40,421	40,421			
1955	43,566	43,566	43,566			
1956	40,316	40,316	40,316			
1957	57,180	56,557	54,592	2,588	0.25	2,588
1958	70,591	68,840	66,448	4,143	0.57	4,143
1959	100,131	96,166	92,825	7,306	0.91	7,306
1960	113,182	107,081	103,361	9,821	1.24	7,920
1961	134,644	125,569	121,207	13,437	1.55	8,669
1962	144,843	133,198	128,571	16,272	1.85	8,796
1963	133,558	121,070	116,864	16,694	2.15	7,765
1964	156,046	139,427	134,583	21,463	2.45	8,760
1965	84,083	73,993	71,422	12,661	2.76	4,587
1966	135,542	117,447	113,367	22,175	3.07	7,223

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 370 METERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 23-R1						
NET SALVAGE PERCENT.. 0						
1967	103,616	88,302	85,234	18,382	3.40	5,406
1968	158,278	132,542	127,937	30,341	3.74	8,113
1969	242,895	199,805	192,864	50,031	4.08	12,263
1970	290,108	234,117	225,984	64,124	4.44	14,442
1971	322,391	254,979	246,121	76,270	4.81	15,857
1972	718,911	556,653	537,314	181,597	5.19	34,990
1973	847,786	642,113	619,806	227,980	5.58	40,857
1974	898,193	664,304	641,226	256,967	5.99	42,899
1975	335,523	242,147	233,735	101,788	6.40	15,904
1976	423,807	297,936	287,585	136,222	6.83	19,945
1977	1,197,492	818,486	790,051	407,441	7.28	55,967
1978	959,923	637,293	615,153	344,770	7.73	44,602
1979	1,492,217	959,496	926,162	566,055	8.21	68,947
1980	1,941,619	1,208,075	1,166,106	775,513	8.69	89,242
1981	1,730,571	1,039,035	1,002,938	727,633	9.19	79,177
1982	1,201,945	694,484	670,357	531,588	9.71	54,746
1983	1,329,451	737,579	711,955	617,496	10.24	60,302
1984	3,016,539	1,601,481	1,545,844	1,470,695	10.79	136,302
1985	3,410,636	1,727,487	1,667,473	1,743,163	11.35	153,583
1986	1,770,643	852,919	823,288	947,355	11.92	79,476
1987	5,259,712	2,398,955	2,315,614	2,944,098	12.51	235,340
1988	5,562,400	2,389,607	2,306,590	3,255,810	13.12	248,156
1989	7,840,313	3,156,510	3,046,851	4,793,462	13.74	348,869
1990	5,499,803	2,063,526	1,991,838	3,507,965	14.37	244,117
1991	4,278,397	1,486,315	1,434,679	2,843,718	15.01	189,455
1992	14,352,966	4,580,031	4,420,918	9,932,048	15.66	634,230
1993	6,361,178	1,844,742	1,780,654	4,580,524	16.33	280,497
1994	11,709,742	3,055,072	2,948,937	8,760,805	17.00	515,341
1995	6,598,188	1,526,161	1,473,141	5,125,047	17.68	289,878
	91,330,710	37,475,167	36,185,262	55,145,448		4,086,660

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 13.5 4.47

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 370.1 ELECTRONIC METERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 12-S2						
NET SALVAGE PERCENT.. 0						
1996	7,531,929	3,741,109	2,900,703	4,631,226	6.04	766,759
1997	2,336	1,010	783	1,553	6.81	228
1998	16,140,488	5,850,927	4,536,571	11,603,917	7.65	1,516,852
1999	6,758,092	1,937,545	1,502,293	5,255,799	8.56	613,995
2000	8,309,433	1,724,207	1,336,880	6,972,553	9.51	733,181
2001	7,821,267	977,658	758,036	7,063,231	10.50	672,689
2002	8,127,704	338,925	262,789	7,864,915	11.50	683,906
	54,691,249	14,571,381	11,298,055	43,393,194		4,987,610
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT..					8.7	9.12

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 371 INSTALLATIONS ON CUSTOMERS PREMISES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-R1						
NET SALVAGE PERCENT.. -20						
1965	1,003,656	896,425	1,005,512	198,875	7.67	25,929
1966	213,427	187,039	209,800	46,312	8.09	5,725
1967	331,929	285,313	320,033	78,282	8.51	9,199
1968	190,043	160,092	179,574	48,478	8.94	5,423
1969	341,280	281,474	315,727	93,809	9.38	10,001
1970	82,619	66,624	74,732	24,411	9.84	2,481
1971	278,615	219,560	246,279	88,059	10.30	8,549
1972	305,578	234,941	263,531	103,163	10.78	9,570
1973	211,604	158,627	177,931	75,994	11.26	6,749
1974	170,482	124,384	139,520	65,058	11.76	5,532
1975	297,419	210,930	236,598	120,305	12.27	9,805
1976	166,582	114,682	128,638	71,260	12.79	5,572
1977	77,533	51,730	58,025	35,015	13.32	2,629
1978	207,508	133,967	150,270	98,740	13.86	7,124
1979	91,606	57,085	64,032	45,895	14.42	3,183
1980	185,191	111,181	124,711	97,518	14.99	6,506
1981	532,894	307,586	345,016	294,457	15.57	18,912
1982	110,356	61,089	68,523	63,904	16.16	3,954
1983	193,604	102,525	115,001	117,324	16.76	7,000
1984	216,684	109,469	122,790	137,231	17.37	7,900
1985	581,552	279,354	313,349	384,513	17.99	21,374
1986	115,021	52,353	58,724	79,301	18.62	4,259
1987	330,275	141,886	159,152	237,178	19.26	12,315
1988	685,069	276,466	310,110	511,973	19.91	25,714
1989	834,611	315,182	353,537	647,996	20.56	31,517
1990	556,993	195,638	219,445	448,947	21.22	21,157
1991	1,053,735	341,789	383,382	881,100	21.89	40,251
1992	654,712	194,607	218,289	567,365	22.57	25,138
1993	1,561,175	421,517	472,812	1,400,598	23.25	60,241
1994	1,218,109	295,708	331,693	1,130,038	23.93	47,223
1995	1,312,957	282,496	316,873	1,258,675	24.62	51,124
1996	1,498,224	280,468	314,599	1,483,270	25.32	58,581
1997	1,807,630	287,847	322,876	1,846,280	26.02	70,956
1998	1,367,898	178,921	200,694	1,440,784	26.73	53,901
1999	1,031,626	105,597	118,447	1,119,504	27.44	40,798

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 371 INSTALLATIONS ON CUSTOMERS PREMISES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-R1						
NET SALVAGE PERCENT.. -20						
2000	1,953,834	143,021	160,425	2,184,176	28.17	77,536
2001	1,464,506	65,024	72,937	1,684,470	28.89	58,306
2002	2,099,294	30,986	34,757	2,484,396	29.63	83,847
	25,335,831	7,763,583	8,708,344	21,694,654		945,981
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT..					22.9	3.73

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 373 STREET LIGHTING AND SIGNAL SYSTEMS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 35-R2						
NET SALVAGE PERCENT.. -20						
1956	153,758	156,889	167,522	16,988	5.24	3,242
1957	147,891	149,269	159,386	18,083	5.56	3,252
1958	272,109	271,674	290,086	36,445	5.88	6,198
1959	137,960	136,133	145,359	20,193	6.22	3,246
1960	258,881	252,347	269,450	41,207	6.57	6,272
1961	87,596	84,271	89,982	15,133	6.94	2,181
1962	72,254	68,575	73,223	13,482	7.32	1,842
1963	160,392	150,069	160,240	32,230	7.71	4,180
1964	260,576	240,147	256,423	56,268	8.12	6,930
1965	53,317	48,350	51,627	12,353	8.55	1,445
1966	1,890	1,685	1,799	469	8.99	52
1967	94,109	82,439	88,026	24,905	9.45	2,635
1968	167,379	143,933	153,688	47,167	9.92	4,755
1969	121,442	102,390	109,329	36,401	10.41	3,497
1970	261,602	215,979	230,617	83,305	10.92	7,629
1971	143,167	115,604	123,439	48,361	11.45	4,224
1972	208,312	164,333	175,470	74,504	11.99	6,214
1973	345,267	265,745	283,756	130,564	12.55	10,404
1974	322,813	242,071	258,477	128,899	13.13	9,817
1975	297,996	217,418	232,153	125,442	13.72	9,143
1976	288,496	204,463	218,320	127,875	14.33	8,924
1977	329,385	226,327	241,666	153,596	14.96	10,267
1978	714,626	475,341	507,557	349,994	15.60	22,436
1979	584,298	375,610	401,067	300,091	16.25	18,467
1980	571,485	354,275	378,286	307,496	16.92	18,174
1981	893,947	533,257	569,398	503,338	17.60	28,599
1982	538,125	308,281	329,174	316,576	18.29	17,309
1983	1,326,332	727,520	776,827	814,771	19.00	42,883
1984	768,324	402,540	429,822	492,167	19.72	24,958
1985	505,098	251,781	268,845	337,273	20.46	16,485
1987	2,466,934	1,103,016	1,177,772	1,782,549	21.96	81,173
1988	1,969,544	828,627	884,786	1,478,667	22.73	65,054
1989	3,509,047	1,382,424	1,476,116	2,734,740	23.51	116,322
1990	2,693,479	988,076	1,055,042	2,177,133	24.30	89,594
1991	4,303,381	1,459,363	1,558,270	3,605,787	25.11	143,600

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 373 STREET LIGHTING AND SIGNAL SYSTEMS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 35-R2						
NET SALVAGE PERCENT.. -20						
1992	907,022	282,338	301,473	786,953	25.92	30,361
1993	4,722,754	1,337,484	1,428,130	4,239,175	26.74	158,533
1994	2,250,040	573,220	612,069	2,087,979	27.57	75,734
1995	3,122,301	704,391	752,130	2,994,631	28.42	105,371
1996	3,971,349	780,132	833,005	3,932,614	29.27	134,356
1997	5,276,921	880,824	940,521	5,391,784	30.13	178,951
1998	3,678,836	505,914	540,202	3,874,401	30.99	125,021
1999	2,735,492	293,464	313,353	2,969,237	31.87	93,167
2000	1,800,892	138,309	147,683	2,013,387	32.76	61,459
2001	2,906,903	134,648	143,774	3,344,510	33.65	99,391
2002	782,015	12,106	12,926	925,492	34.55	26,787
	57,185,737	18,373,052	19,618,266	49,004,615		1,890,534

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 25.9 3.31

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 390 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-R1						
NET SALVAGE PERCENT.. -15						
1947	4,332	4,038	4,872	110	7.39	15
1958	4,120	3,307	3,990	748	11.78	63
1960	38,435	29,840	36,005	8,195	12.67	647
1961	294,333	224,516	270,905	67,578	13.13	5,147
1962	1,216,519	911,167	1,099,429	299,568	13.60	22,027
1963	3,559,030	2,615,353	3,155,729	937,156	14.08	66,559
1964	566,408	408,018	492,321	159,048	14.57	10,916
1965	41,067	28,988	34,977	12,250	15.06	813
1966	94,524	65,309	78,803	29,900	15.57	1,920
1967	78,775	53,240	64,240	26,351	16.08	1,639
1968	115,099	76,030	91,739	40,625	16.60	2,447
1969	200,574	129,354	156,081	74,579	17.13	4,354
1970	386,456	243,056	293,275	151,149	17.67	8,554
1971	114,460	70,132	84,622	47,007	18.22	2,580
1972	17,378	10,366	12,508	7,477	18.77	398
1973	576,009	333,921	402,915	259,495	19.34	13,418
1974	690,764	388,610	468,903	325,476	19.92	16,339
1975	392,972	214,390	258,687	193,231	20.50	9,426
1976	309,613	163,500	197,282	158,773	21.09	7,528
1977	209,725	107,037	129,153	112,031	21.69	5,165
1978	385,080	189,625	228,805	214,037	22.30	9,598
1979	445,114	211,049	254,655	257,226	22.92	11,223
1980	3,483,935	1,588,187	1,916,333	2,090,192	23.54	88,793
1981	287,417	125,700	151,672	178,858	24.17	7,400
1982	3,473,077	1,453,031	1,753,251	2,240,788	24.81	90,318
1983	606,190	242,179	292,217	404,902	25.45	15,910
1984	1,308,342	497,268	600,012	904,581	26.11	34,645
1985	7,132,214	2,573,802	3,105,592	5,096,454	26.76	190,450
1986	9,378,954	3,202,303	3,863,952	6,921,845	27.42	252,438
1987	4,555,417	1,465,273	1,768,023	3,470,707	28.09	123,557
1988	9,975,852	3,012,608	3,635,063	7,837,167	28.76	272,502
1989	1,592,921	448,989	541,758	1,290,101	29.44	43,821
1990	2,224,550	582,510	702,866	1,855,367	30.12	61,599
1991	1,904,799	460,009	555,055	1,635,464	30.81	53,082
1992	2,054,276	455,002	549,013	1,813,404	31.49	57,587

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 390 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-R1						
NET SALVAGE PERCENT.. -15						
1993	2,525,614	507,118	611,897	2,292,559	32.19	71,220
1994	2,903,131	523,826	632,057	2,706,544	32.88	82,316
1995	916,089	146,437	176,693	876,809	33.58	26,111
1996	3,506,879	487,176	587,835	3,445,076	34.29	100,469
1997	1,824,737	215,301	259,786	1,838,662	35.00	52,533
1998	5,513,506	535,141	645,710	5,694,822	35.71	159,474
1999	1,583,254	119,987	144,778	1,675,964	36.43	46,005
2000	915,695	49,704	59,974	993,075	37.16	26,724
2001	1,014,925	33,264	40,137	1,127,027	37.89	29,745
2002	18,244,874	199,325	240,509	20,741,096	38.63	536,917
	96,667,435	25,404,986	30,654,079	80,513,474		2,624,392
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT..					30.7	2.71

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 391 OFFICE FURNITURE AND EQUIPMENT - FURNITURE

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	-ACCRUED DEPREC.- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. 20-SQUARE							
NET SALVAGE PERCENT.. 0							
1979	23,005					1.0000	23,005
1982	5,241					1.0000	5,241
1985	56,459	20.00	5.00	2,822.95	2.50	.8750	49,402
1986	849,800	20.00	5.00	42,490.00	3.50	.8250	701,085
1987	38,481	20.00	5.00	1,924.05	4.50	.7750	29,823
1988	33,188	20.00	5.00	1,659.40	5.50	.7250	24,061
1989	10,335,873	20.00	5.00	516,793.65	6.50	.6750	6,976,714
1990	1,345,986	20.00	5.00	67,299.30	7.50	.6250	841,241
1992	48,238	20.00	5.00	2,411.90	9.50	.5250	25,325
1993	140,853	20.00	5.00	7,042.65	10.50	.4750	66,905
1994	46,856	20.00	5.00	2,342.80	11.50	.4250	19,914
1995	877,474	20.00	5.00	43,873.70	12.50	.3750	329,053
1996	538,551	20.00	5.00	26,927.55	13.50	.3250	175,029
1997	90,294	20.00	5.00	4,514.70	14.50	.2750	24,831
1998	443,007	20.00	5.00	22,150.35	15.50	.2250	99,677
1999	669,276	20.00	5.00	33,463.80	16.50	.1750	117,123
2000	2,054,544	20.00	5.00	102,727.20	17.50	.1250	256,818
2001	1,482,766	20.00	5.00	74,138.30	18.50	.0750	111,207
2002	839,748	20.00	5.00	41,987.40	19.50	.0250	20,994
TOTAL	19,919,640			994,569.70			9,897,448

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 4.99

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 391.1 OFFICE FURNITURE AND EQUIPMENT - PC EQUIP

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	-ACCRUED DEPREC.- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. 5-SQUARE							
NET SALVAGE PERCENT.. 0							
1995	24,977					1.0000	24,977
1996	3,576,320					1.0000	3,576,320
1997	2,716,808					1.0000	2,716,808
1998	7,522,688	5.00	20.00	1,504,537.60	0.50	.9000	6,770,419
1999	3,345,538	5.00	20.00	669,107.60	1.50	.7000	2,341,877
2000	8,542,711	5.00	20.00	1,708,542.20	2.50	.5000	4,271,356
2001	1,445,002	5.00	20.00	289,000.40	3.50	.3000	433,501
2002	11,480,902	5.00	20.00	2,296,180.40	4.50	.1000	1,148,090
TOTAL	38,654,946			6,467,368.20			21,283,348

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 16.73

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 391.2 OFFICE FURNITURE AND EQUIPMENT - EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	-ACCRUED DEPREC.- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. 10-SQUARE							
NET SALVAGE PERCENT.. 0							
1978	15,438					1.0000	15,438
1979	64,656					1.0000	64,656
1982	262,056					1.0000	262,056
1983	180,890					1.0000	180,890
1984	158,214					1.0000	158,214
1985	194,477					1.0000	194,477
1986	352,472					1.0000	352,472
1987	845,445					1.0000	845,445
1988	332,473					1.0000	332,473
1989	147,322					1.0000	147,322
1990	92,554					1.0000	92,554
1991	337,134					1.0000	337,134
1992	50,703					1.0000	50,703
1993	93,530	10.00	10.00	9,353.00	0.50	.9500	88,854
1994	277,713	10.00	10.00	27,771.30	1.50	.8500	236,056
1995	21,691	10.00	10.00	2,169.10	2.50	.7500	16,268
1996	2,972	10.00	10.00	297.20	3.50	.6500	1,932
1997	389,977	10.00	10.00	38,997.70	4.50	.5500	214,487
1998	47,234	10.00	10.00	4,723.40	5.50	.4500	21,255
1999	98,555	10.00	10.00	9,855.50	6.50	.3500	34,494
2000	33,506	10.00	10.00	3,350.60	7.50	.2500	8,377
2001	2,320,311	10.00	10.00	232,031.10	8.50	.1500	348,047
2002	1,333,600	10.00	10.00	133,360.00	9.50	.0500	66,680
TOTAL	7,652,923			461,908.90			4,070,284

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 6.04

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 393 STORES EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	-ACCRUED DEPREC.- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. 20-SQUARE							
NET SALVAGE PERCENT.. 0							
1953	63,220					1.0000	63,220
1954	16,665					1.0000	16,665
1955	7,879					1.0000	7,879
1956	24,283					1.0000	24,283
1957	21,255					1.0000	21,255
1958	4,843					1.0000	4,843
1959	16,813					1.0000	16,813
1960	22,920					1.0000	22,920
1961	7,163					1.0000	7,163
1962	99,204					1.0000	99,204
1963	37,701					1.0000	37,701
1966	7,696					1.0000	7,696
1967	6,541					1.0000	6,541
1968	10,235					1.0000	10,235
1969	4,756					1.0000	4,756
1970	15,045					1.0000	15,045
1972	6,102					1.0000	6,102
1973	17,676					1.0000	17,676
1974	32,148					1.0000	32,148
1975	12,042					1.0000	12,042
1976	6,733					1.0000	6,733
1977	16,809					1.0000	16,809
1978	33,911					1.0000	33,911
1979	43,187					1.0000	43,187
1980	49,833					1.0000	49,833
1981	28,200					1.0000	28,200
1982	16,098					1.0000	16,098
1983	27,998	20.00	5.00	1,399.90	0.50	.9750	27,298
1984	195,856	20.00	5.00	9,792.80	1.50	.9250	181,167
1985	156,387	20.00	5.00	7,819.35	2.50	.8750	136,839
1986	95,929	20.00	5.00	4,796.45	3.50	.8250	79,141
1987	91,317	20.00	5.00	4,565.85	4.50	.7750	70,771
1988	6,285	20.00	5.00	314.25	5.50	.7250	4,557
1989	13,442	20.00	5.00	672.10	6.50	.6750	9,073
1994	11,199	20.00	5.00	559.95	11.50	.4250	4,760
TOTAL	1,227,371			29,920.65			1,142,564

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 2.44

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 394 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	-ACCRUED DEPREC.- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. 20-SQUARE							
NET SALVAGE PERCENT.. 0							
1986	33,498	20.00	5.00	1,674.90	3.50	.8250	27,636
1987	367,503	20.00	5.00	18,375.15	4.50	.7750	284,815
1988	185,033	20.00	5.00	9,251.65	5.50	.7250	134,149
1989	504,922	20.00	5.00	25,246.10	6.50	.6750	340,822
1990	1,035,131	20.00	5.00	51,756.55	7.50	.6250	646,957
1991	574,258	20.00	5.00	28,712.90	8.50	.5750	330,198
1992	392,467	20.00	5.00	19,623.35	9.50	.5250	206,045
1993	242,906	20.00	5.00	12,145.30	10.50	.4750	115,380
1994	1,452,458	20.00	5.00	72,622.90	11.50	.4250	617,295
1995	345,750	20.00	5.00	17,287.50	12.50	.3750	129,656
1996	1,344,415	20.00	5.00	67,220.75	13.50	.3250	436,935
1997	815,217	20.00	5.00	40,760.85	14.50	.2750	224,185
1998	140,443	20.00	5.00	7,022.15	15.50	.2250	31,600
1999	382,362	20.00	5.00	19,118.10	16.50	.1750	66,913
2000	2,637,596	20.00	5.00	131,879.80	17.50	.1250	329,700
2001	230,361	20.00	5.00	11,518.05	18.50	.0750	17,277
2002	1,988,711	20.00	5.00	99,435.55	19.50	.0250	49,718
TOTAL	12,673,031			633,651.55			3,989,281

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 5.00

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 395 LABORATORY EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	-ACCRUED DEPREC.- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. 15-SQUARE							
NET SALVAGE PERCENT.. 0							
1970	2,080					1.0000	2,080
1972	43,765					1.0000	43,765
1973	2,392					1.0000	2,392
1975	1,352					1.0000	1,352
1976	1,801					1.0000	1,801
1978	315					1.0000	315
1980	630					1.0000	630
1982	1,224					1.0000	1,224
1983	4,080					1.0000	4,080
1984	1,938					1.0000	1,938
1985	115,702					1.0000	115,702
1986	23,132					1.0000	23,132
1987	24,730					1.0000	24,730
1988	138,581	15.00	6.67	9,243.35	0.50	.9667	133,966
1989	64,472	15.00	6.67	4,300.28	1.50	.9000	58,025
1990	176,146	15.00	6.67	11,748.94	2.50	.8333	146,782
1991	438,006	15.00	6.67	29,215.00	3.50	.7667	335,819
1992	127,003	15.00	6.67	8,471.10	4.50	.7000	88,902
1993	38,992	15.00	6.67	2,600.77	5.50	.6333	24,694
1994	101,225	15.00	6.67	6,751.71	6.50	.5667	57,364
1996	4,228	15.00	6.67	282.01	8.50	.4333	1,832
1998	38,789	15.00	6.67	2,587.23	10.50	.3000	11,637
TOTAL	1,350,583			75,200.39			1,082,162

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. .5.57

ARIZONA PUBLIC SERVICE COMPANY

ACOUNNT 397 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 19-S1.5						
NET SALVAGE PERCENT.. 0						
1969	363,208	340,834	351,920	11,288	1.17	9,648
1972	3,774	3,391	3,501	273	1.93	141
1974	3,036	2,646	2,732	304	2.44	125
1976	243,523	205,339	212,018	31,505	2.98	10,572
1977	731,814	605,869	625,575	106,239	3.27	32,489
1978	958,522	778,895	804,229	154,293	3.56	43,341
1979	215,198	171,362	176,936	38,262	3.87	9,887
1980	1,009,386	786,816	812,407	196,979	4.19	47,012
1981	209,687	159,698	164,892	44,795	4.53	9,889
1982	1,602,372	1,189,921	1,228,623	373,749	4.89	76,431
1983	162,286	117,365	121,182	41,104	5.26	7,814
1984	793,955	557,436	575,567	218,388	5.66	38,584
1985	1,005,942	684,041	706,290	299,652	6.08	49,285
1986	6,386,604	4,191,528	4,327,858	2,058,746	6.53	315,275
1987	1,746,485	1,103,080	1,138,958	607,527	7.00	86,790
1988	3,091,380	1,869,357	1,930,158	1,161,222	7.51	154,623
1989	3,839,875	2,212,920	2,284,895	1,554,980	8.05	193,165
1990	9,415,685	5,143,789	5,311,091	4,104,594	8.62	476,171
1991	3,084,441	1,586,020	1,637,606	1,446,835	9.23	156,754
1992	4,075,032	1,956,015	2,019,635	2,055,397	9.88	208,036
1993	782,270	346,702	357,979	424,291	10.58	40,103
1994	4,854,731	1,964,710	2,028,612	2,826,119	11.31	249,878
1995	1,212,234	440,890	455,230	757,004	12.09	62,614
1996	7,982,909	2,563,312	2,646,684	5,336,225	12.90	413,661
1997	7,825,969	2,158,402	2,228,604	5,597,365	13.76	406,785
1998	4,151,079	950,182	981,087	3,169,992	14.65	216,382
1999	12,243,599	2,203,848	2,275,528	9,968,071	15.58	639,799
2000	6,666,819	866,686	894,875	5,771,944	16.53	349,180
2001	380,053	29,796	30,765	349,288	17.51	19,948
2002	9,267,823	243,744	251,672	9,016,151	18.50	487,360
	94,309,691	35,434,594	36,587,109	57,722,582		4,811,742

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT.. 12.0 5.10

ARIZONA PUBLIC SERVICE COMPANY

ACCOUNT 398 MISCELLANEOUS EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL RATE	ACCRRUAL-- AMOUNT	EXP.	-ACCRUED FACTOR	DEPREC.- AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. 20-SQUARE							
NET SALVAGE PERCENT.. 0							
1976	5,074					1.0000	5,074
1977	469					1.0000	469
1981	25,332					1.0000	25,332
1983	9,787	20.00	5.00	489.35	0.50	.9750	9,542
1984	11,419	20.00	5.00	570.95	1.50	.9250	10,563
1985	5,828	20.00	5.00	291.40	2.50	.8750	5,100
1986	67,697	20.00	5.00	3,384.85	3.50	.8250	55,850
1987	69,632	20.00	5.00	3,481.60	4.50	.7750	53,965
1988	11,188	20.00	5.00	559.40	5.50	.7250	8,111
1989	103,445	20.00	5.00	5,172.25	6.50	.6750	69,825
1990	111,815	20.00	5.00	5,590.75	7.50	.6250	69,884
1991	2,956	20.00	5.00	147.80	8.50	.5750	1,700
1993	4,383	20.00	5.00	219.15	10.50	.4750	2,082
1994	601,135	20.00	5.00	30,056.75	11.50	.4250	255,482
2000	23,461	20.00	5.00	1,173.05	17.50	.1250	2,933
2001	27,403	20.00	5.00	1,370.15	18.50	.0750	2,055
2002	255,380	20.00	5.00	12,769.00	19.50	.0250	6,385
TOTAL	1,336,404			65,276.45			584,352

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 4.88

PINNACLE WEST ENERGY CORPORATION

Phoenix, Arizona

ADDENDUM TO DEPRECIATION STUDY PREPARED FOR ARIZONA PUBLIC SERVICE COMPANY

i

RECOMMENDED REMAINING LIFE DEPRECIATION ACCRUAL RATES

AS OF DECEMBER 31, 2002



Harrisburg, Pennsylvania

Calgary, Alberta

Valley Forge, Pennsylvania

PINNACLE WEST ENERGY CORPORATION

Phoenix, Arizona

ADDENDUM TO DEPRECIATION STUDY PREPARED FOR
ARIZONA PUBLIC SERVICE COMPANY

RECOMMENDED REMAINING LIFE DEPRECIATION ACCRUAL RATES

AS OF DECEMBER 31, 2002

GANNETT FLEMING, INC. - VALUATION AND RATE DIVISION

Harrisburg, Pennsylvania

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June 18, 2003

Pinnacle West Energy Corporation
400 North 5th Street
Phoenix, AZ 85004

Attention Mr. Chris Froggatt
Vice President and Controller

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Ladies and Gentlemen:

Pursuant to your request, we have studied the service life and net salvage characteristics of the electric plant of the Pinnacle West Energy Corporation for the purpose of determining recommended annual depreciation accrual rates as of December 31, 2002. The results of our study are presented in the attached report.

This report was prepared as an addendum to the depreciation study report conducted for Arizona Public Service Company (APS). The same depreciation methods and procedures were used in this study as those used in the APS report. The report sets forth a description of the concepts and methods upon which the study was based, our estimates of survivor curves and net salvage, and the ensuing remaining life depreciation accrual rates. The results of the study are summarized in the table on page III-4.

Respectfully submitted,

GANNETT FLEMING, INC.

John F. Wiedmayer
JOHN F. WIEDMAYER, CDP
Supervisor, Depreciation Studies

JFW:krm

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PART I. INTRODUCTION

PINNACLE WEST ENERGY CORPORATION

DEPRECIATION STUDY

PART I. INTRODUCTION

This report presents the methods used in and the results of the depreciation study conducted for Pinnacle West Energy Corporation ("PWEC" or "the Company"). The assets included in this study consist of three recently constructed electric generating facilities. Two of the facilities are combined-cycle ("CC") plants and the third is a simple-cycle combustion turbine ("CT"). All three facilities, Redhawk CC Units 1 & 2, West Phoenix CC Unit 4 and Saguaro CT Unit 3 are 100 percent owned by PWEC. The primary fuel used to generate electricity at each of these locations is natural gas. The facilities can be grouped into various categories, such as mode of operation (baseload, intermediate and peaking). Redhawk is operating as a baseload plant; West Phoenix CC 4 is operating as an intermediate plant; and Saguaro CT 3 is operating as a peaking plant.

BASIS OF THE STUDY

The purpose of the study was to determine the annual remaining life depreciation accrual rates applicable to electric plant in service as of December 31, 2002. For all accounts, the annual and accrued depreciation were calculated by the straight line method, remaining life basis, and the average service life procedure. The depreciation calculations were based on original cost, attained ages and estimates of survivor curves and net salvage percents for each account as of December 31, 2002.

The service life and net salvage estimates used in the depreciation calculations were based on judgment which incorporated analyses of available historical and projected data, a review of current policies and outlook with management, a field survey of the property, a general knowledge of the electric industry, and comparisons of the survivor curve and net salvage estimates from studies of other electric companies. The use of survivor curves to reflect the expected dispersion of retirement provides a consistent method of estimating depreciation for utility property. Iowa type survivor curves were used to depict the estimated survivor curves for most of the property groups. For the power plant structures and equipment in Accounts 341 through 344, probable retirement years were estimated and the life span procedure of calculating depreciation was used to provide for the simultaneous retirement of all associated property, surviving from various years of installation, at the time of the retirement of the major investment. Net salvage amounts will be expensed pursuant to requirements of SFAS 143 since PWEC's assets are not subject to regulation by the Arizona Corporation Commission (ACC). PWEC is a non-regulated corporation and, therefore, must maintain their financial statements in accordance with Generally Accepted Accounting Principles (GAAP).

PART II. METHODS USED
IN THE ESTIMATION OF DEPRECIATION

PART II. METHODS USED IN THE ESTIMATION OF DEPRECIATION

DEPRECIATION

Depreciation, as applied to depreciable electric plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption of prospective retirement of electric plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand and requirements of public authority.

Depreciation as used in accounting is a method of distributing fixed capital costs, less net salvage, over a period of time by allocating annual amounts to expense. Each annual amount of such depreciation expense is part of that year's total cost of providing utility service. Normally, the period of time over which the fixed capital cost is allocated to the cost of service is equal to the period of time over which an item renders service, that is, the item's service life. The most prevalent method of allocation is to distribute an equal amount of cost to each year of service life. This method is known as the straight line method of depreciation.

The calculation of annual depreciation based on the straight line method requires the estimation of average life and salvage. These subjects are discussed in the sections which follow.

Service Life Considerations

The service life estimates were based on judgment which considered a number of factors. The primary factors were the statistical analyses of historical and projected plant accounting data for Redhawk; current Company policies and outlook as determined during field reviews of the property and other conversations with management; and the survivor curve estimates from previous studies of this company and other electric companies.

Inasmuch as production plant consists of large generating units, the life span technique was employed in conjunction with the use of interim survivor curves which reflect interim retirements that occur prior to the ultimate retirement of the major unit. An interim survivor curve was estimated for each plant account, inasmuch as the rate of interim retirements differs from account to account. The interim survivor curves estimated for Redhawk were based on the retirement rate method of life analysis which incorporated experienced and estimated aged plant accounting data for the period 2002 through 2012. The 2003 through 2012 retirements were based on planned capital replacements incorporated in the Company's 10-year capital plan for production facilities. The interim survivor curves used for the other two facilities were based on the same interim survivor curves used by Arizona Public Service Company. The statistical support for the interim rates of retirement for production plant accounts are set forth in Appendix A.

The life span estimates for power generating stations were the result of considering experienced life spans of similar generating units, the age of surviving units, general operating characteristics of the units, major refurbishing, and discussions with management personnel concerning the probable long-term outlook for the units.

A typical life span estimate for combined cycle and combustion turbine units ranges from 25-35 years. The life span estimates for Redhawk CC 1 & 2, Saguaro CT 3 and West Phoenix CC 4 are 32, 30 and 30 years, respectively. The life span estimates are within the range typically used for such units and are consistent with management's outlook for the facilities..

A summary of the year in service, life span and probable retirement year for each power production unit follows:

<u>Depreciable Group</u>	<u>Year in Service</u>	<u>Probable Retirement Year</u>	<u>Life Span</u>
<u>OTHER PRODUCTION PLANT</u>			
Redhawk Combined Cycle 1-2	2002	2034	32
Saguaro Combustion Turbine 3	2002	2032	30
West Phoenix Combined Cycle 4	2001	2031	30

The estimated retirement dates should not be interpreted as commitments to retire these plants on these dates, but rather, as reasonable estimates subject to modification in the future as circumstances dictate.

Field Trips

In order to be familiar with the operation of the company and observe representative portions of the plant, field trips were scheduled. A general understanding of the function of the plant and information with respect to the expected causes of retirements were obtained during these field trips. This knowledge and information were incorporated in the

interpretation and extrapolation of the statistical analyses. The following is a list of the locations visited in 2002:

Redhawk Combined Cycle Units 1 & 2
West Phoenix Combined Cycle Unit 4

Net Salvage Considerations

The Company expects that there will be interim and final retirements associated with these three generating facilities. Also, the Company expects that there will be interim and final net salvage associated with the retirements. PWEC expects that the removal costs associated with plant retirements will exceed gross salvage. PWEC will treat all removal costs as a current period expense as incurred consistent with SFAS 143. The treatment of cost of removal as an expense is a departure from the typical accounting treatment used for regulatory purposes. However, since these facilities are owned by PWEC, a company whose assets are not regulated by the Arizona Corporation Commission, the Company is compelled to adhere to SFAS 143. The depreciation rates proposed for PWEC do not provide for the prospective recovery of future negative net salvage, i.e., cost of removal exceeds gross salvage. Therefore, the net salvage percent is estimated to be zero.

CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

Group Depreciation Procedures. A group procedure for depreciation is appropriate when considering more than a single item of property. Normally, the items within a group do not have identical service lives, but have lives that are dispersed over a range of time. In the average service life procedure, the rate of annual depreciation is based on the average life or average remaining life of the group, and this rate is applied to the surviving balances of the group's cost. A characteristic of this procedure is that the cost of plant retired prior to average life is not fully recouped at the time of retirement, whereas the cost of plant retired subsequent to average life is more than fully recouped. Over the entire life

cycle, the portion of cost not recouped prior to average life is balanced by the cost recouped subsequent to average life.

Remaining Life Annual Accruals. For calculating remaining life accrual rates as of December 31, 2002, the estimated book depreciation reserve for each plant account is allocated among vintages in proportion to the calculated accrued depreciation for the account. Explanations of remaining life accruals and accrued depreciation calculated by the average service life procedure follow. The detailed depreciation calculations are set forth in Appendix B of the report.

Average Service Life Procedure. In the average service life procedure, the remaining life annual accrual for each vintage is determined by dividing future book accruals (original cost less book reserve) by the average remaining life of the vintage. The average remaining life is a directly-weighted average derived from the estimated future survivor curve in accordance with the average service life procedure.

The calculated accrued depreciation for each depreciable property group represents that portion of the depreciable cost of the group which would not be allocated to expense through future whole life depreciation accruals if current forecasts of life characteristics are used as the basis for such accruals. The accrued depreciation calculation consists of applying an appropriate ratio to the surviving original cost of each vintage of each account, based upon the attained age and service life. The straight line accrued depreciation ratios are calculated as follows for the average service life procedure:

$$\text{Ratio} = 1 - \frac{\text{Average Remaining Life}}{\text{Average Service Life}}$$

PART III. RESULTS OF STUDY

PART III. RESULTS OF STUDY

QUALIFICATION OF RESULTS

The estimates of survivor curves and net salvage and the determination of remaining life depreciation accrual rates are the principal results of the study. Continued surveillance and periodic revisions are normally required to maintain continued use of appropriate annual depreciation accrual rates. An assumption that accrual rates can remain unchanged over a long period of time implies a disregard for the inherent variability in service lives and salvage and for the change of the composition of property in service. The annual accrual rates and the accrued depreciation were calculated in accordance with the straight line method, average service life procedure using the remaining life technique based on estimates which reflect considerations of current historical evidence and expected future conditions.

The calculated accrued depreciation represents that portion of the depreciable cost which will not be allocated to future annual expense through depreciation accruals, if current forecasts of service life and salvage materialize and are used as a basis for straight line average service life depreciation accounting.

DESCRIPTION OF STATISTICAL SUPPORT

The service life and salvage estimates were based on judgment which incorporated statistical analyses of retirement data, discussions with management and consideration of estimates made for other electric utility companies. The results of the statistical analyses of service life are presented in Appendix A.

The estimated survivor curves for each account are presented in graphical form. The charts depict the estimated smooth survivor curve and original survivor curve(s), when applicable, related to each specific group. For groups where the original survivor curve was plotted, the calculation of the original life table is also presented.

DESCRIPTION OF DEPRECIATION TABULATIONS

A summary of the results of the study, as applied to the original cost of electric plant at December 31, 2002, is presented in Schedule 1 of this report. Schedule 1 sets forth, by depreciable category, the estimated survivor curve, net salvage, original cost, book depreciation reserve at December 31, 2002, future book accruals, calculated annual accrual amount and rate, and composite remaining life for utility plant.

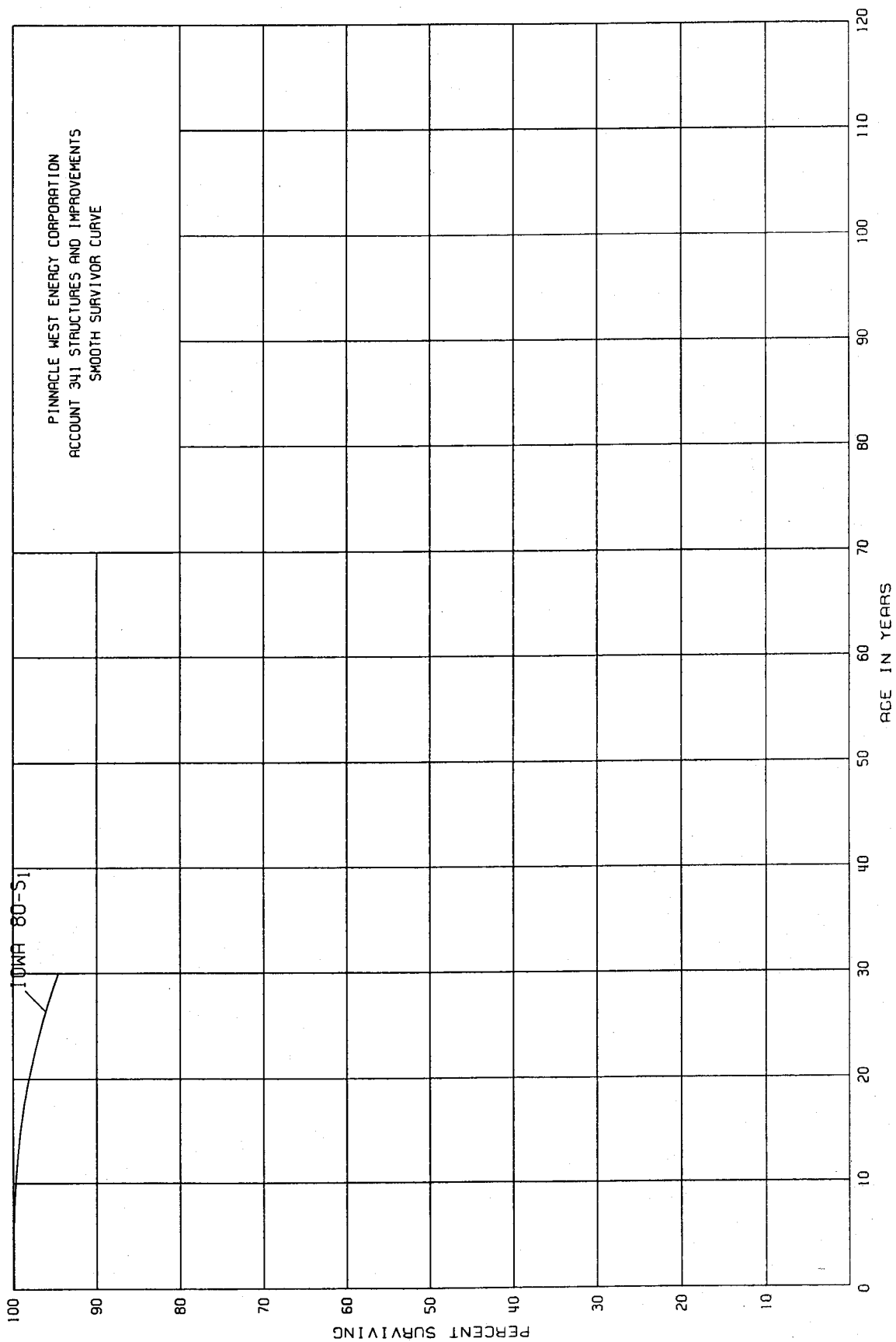
The tables of the calculated annual and accrued depreciation are presented in account sequence in Appendix B. The tables indicate the estimated survivor curve and salvage percent for the account and set forth for each installation year the original cost, the calculated annual accrual rate and amount, and the calculated accrued depreciation factor and amount.

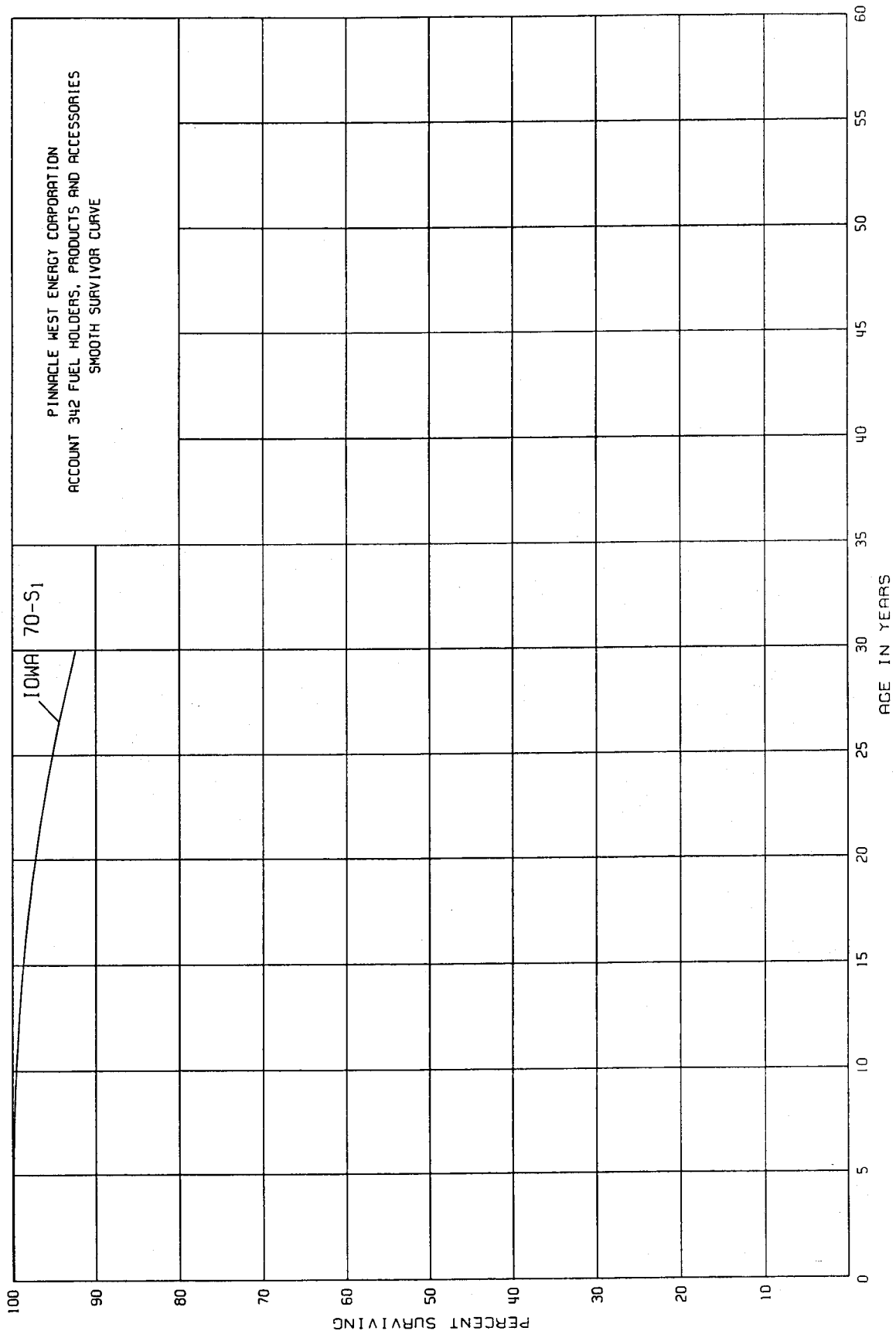
PINNACLE WEST ENERGY CORPORATION

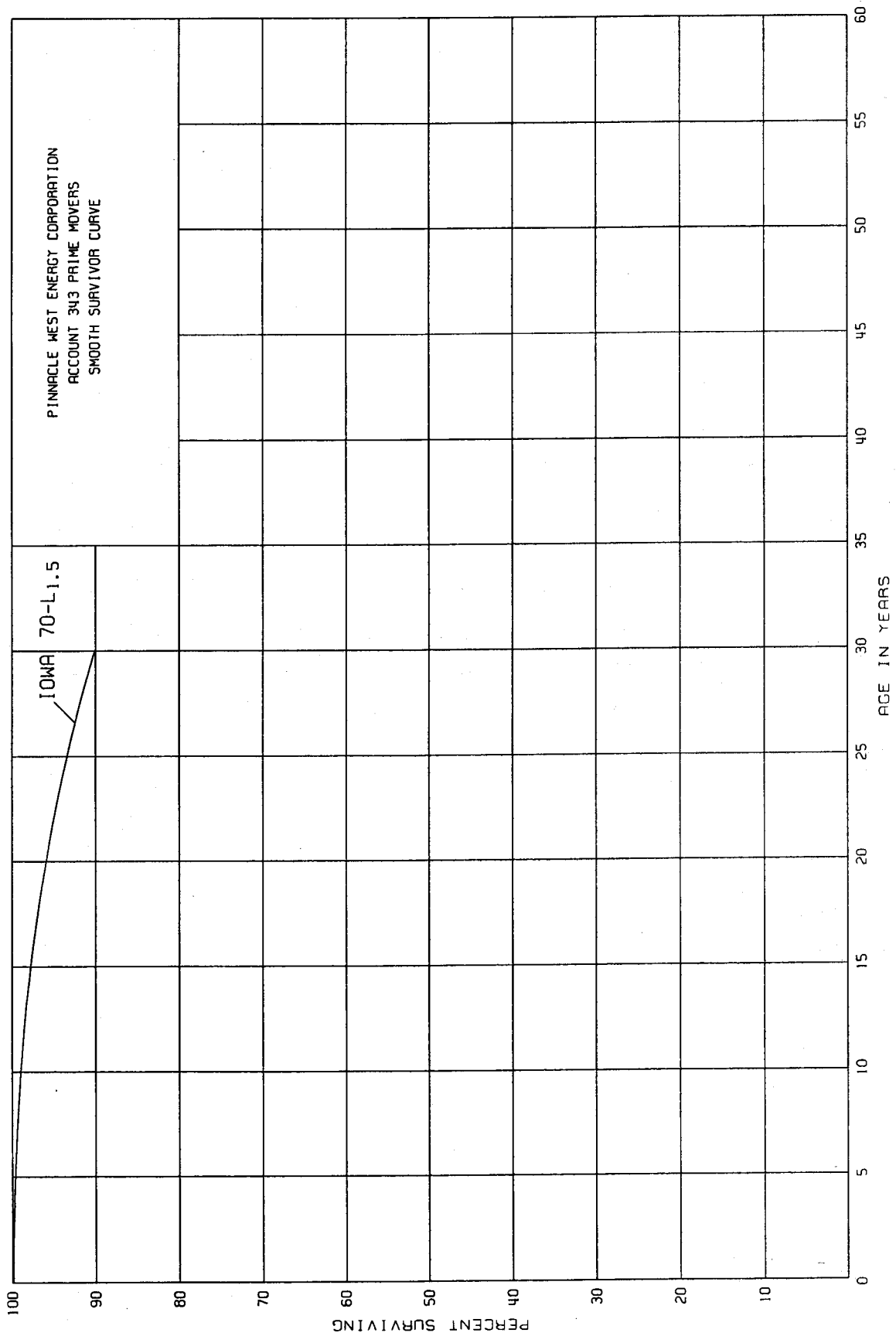
**Schedule 1. Summary of Service Life and Net Salvage Estimates and Calculated Remaining Life Annual Accruals
Related to Electric Plant at December 31, 2002**

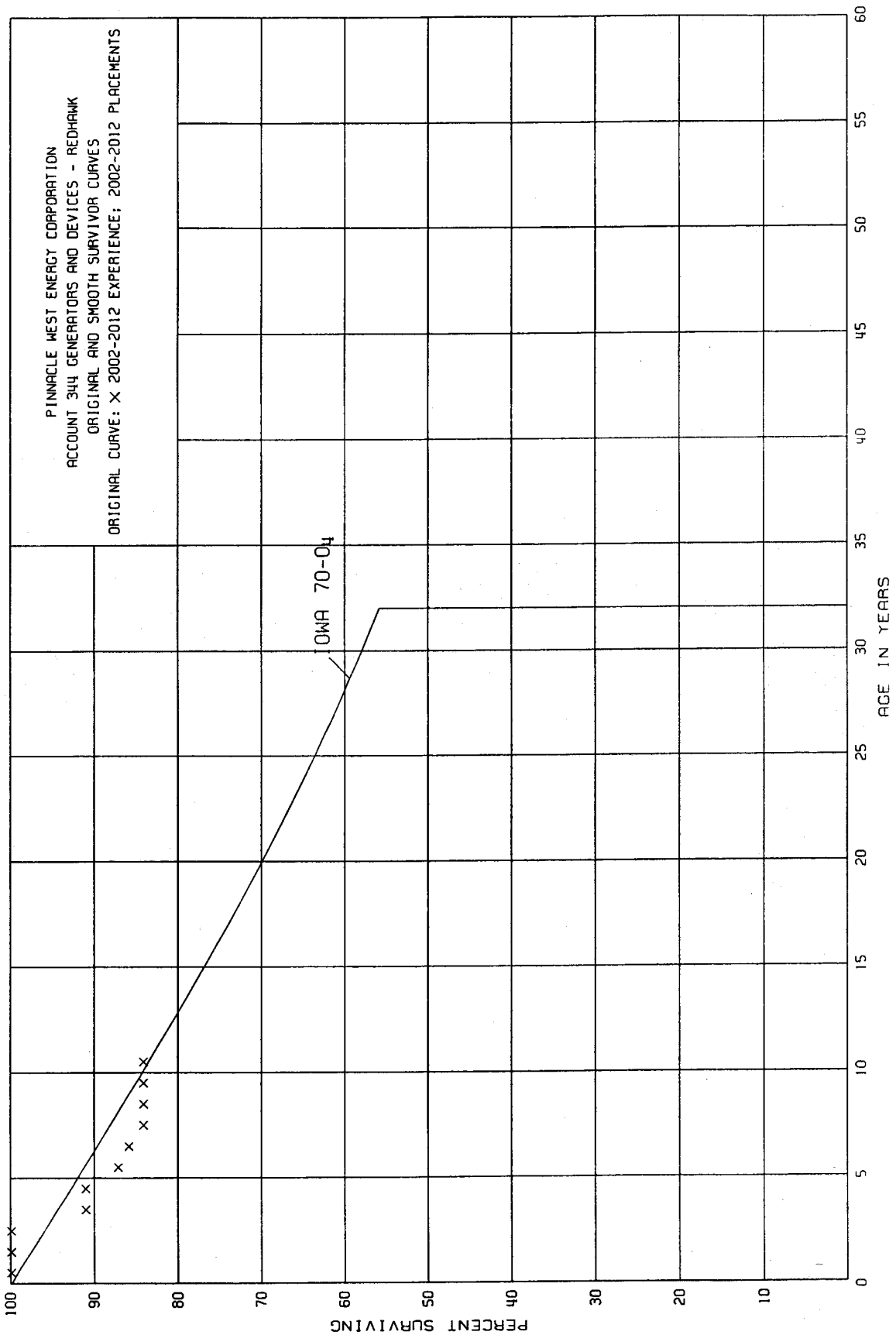
Depreciable Group (1)	Probable Retirement Year (2)	Estimated Survivor Curve (3)	Net Salvage Percent (4)	Original Cost at 12/31/02 (5)	Book Accumulated Depreciation (6)	Future Accruals (7)	Composite Remaining Life (8)	Calculated Annual Accrual	
								Amount (9)	Rate (10)=(9)/(5)
OTHER PRODUCTION									
341 Structures and Improvements West Phoenix CC 4	06-2031	80 - S1	0	3,768,898	234,108	3,534,790	28.1	126,017	3.34
342 Fuel Holders, Products and Accessories West Phoenix CC 4	06-2031	70 - S1	0	4,135,109	257,106	3,878,003	27.9	139,196	3.37
343 Prime Movers West Phoenix CC 4	06-2031	70 - L1.5	0	57,116,985	3,545,340	53,571,645	27.6	1,942,409	3.40
344 Generators and Devices Redhawk CC Units 1 & 2 West Phoenix CC 4 Saguaro CT 3	06-2034 06-2031 06-2032	70 - O4 37 - R3 37 - R3	0 0 0	546,899,426 14,296,553 37,659,176	9,255,982 897,926 701,673	537,643,444 13,398,627 36,957,503	24.0 26.8 27.7	22,355,237 500,696 1,331,802	4.09 3.50 3.54
Total Account 344				598,855,155	10,855,581	587,999,574		24,187,735	4.04
TOTAL OTHER PRODUCTION PLANT									
				663,876,147	14,892,135	648,984,012		26,395,357	
TRANSMISSION									
353 Station Equipment Redhawk CC Units 1 & 2 West Phoenix CC 4		42 - R3 42 - R3	0 0	46,000,000 1,953,105	532,552 121,193	45,467,448 1,831,912	41.5 40.5	1,095,337 45,199	2.38 2.31
Total Account 353				47,953,105	653,745	47,299,360		1,140,536	2.38
355 Poles and Fixtures - Steel Redhawk CC Units 1 & 2		55 - R3	0	1,500,000	17,032	1,482,968	54.5	27,205	1.81
356 Overhead Conductors and Devices Redhawk CC Units 1 & 2		55 - R3	0	1,500,000	17,834	1,482,166	54.5	27,191	1.81
TOTAL TRANSMISSION PLANT									
				50,953,105	688,611	50,264,494		1,194,932	
TOTAL DEPRECIABLE PLANT									
				714,829,252	15,580,746	699,248,506		27,590,289	
NONDEPRECIABLE PLANT									
340 Land Redhawk CC Common West Phoenix CC 4				2,246,597 32,909	70				
TOTAL NONDEPRECIABLE PLANT									
				2,279,507	70				
TOTAL PWE PLANT IN SERVICE									
				717,108,759	15,580,816				

APPENDIX A
SERVICE LIFE STATISTICS









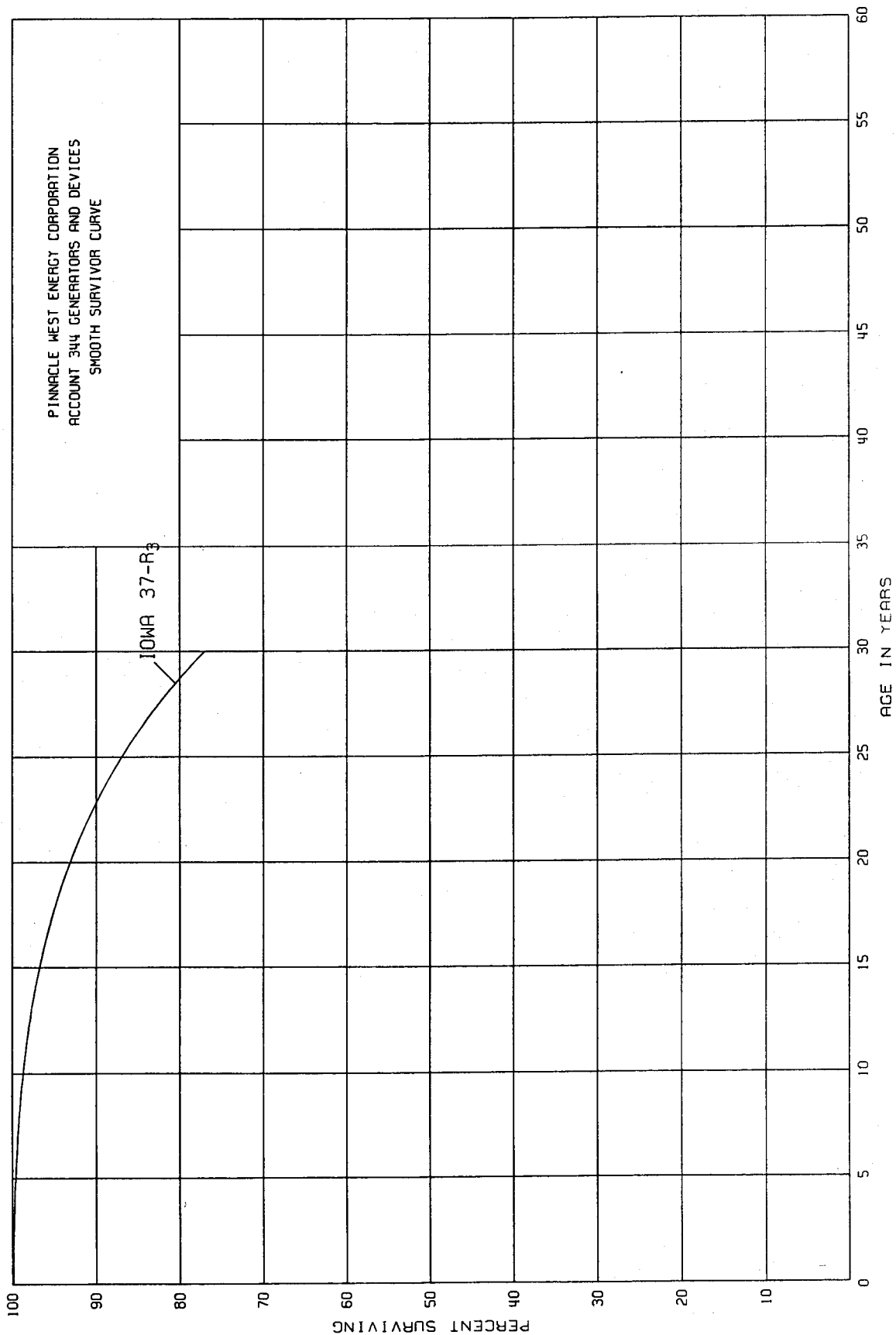
PINNACLE WEST ENERGY CORPORATION
ACCOUNT 344 GENERATORS AND DEVICES - REDHAWK

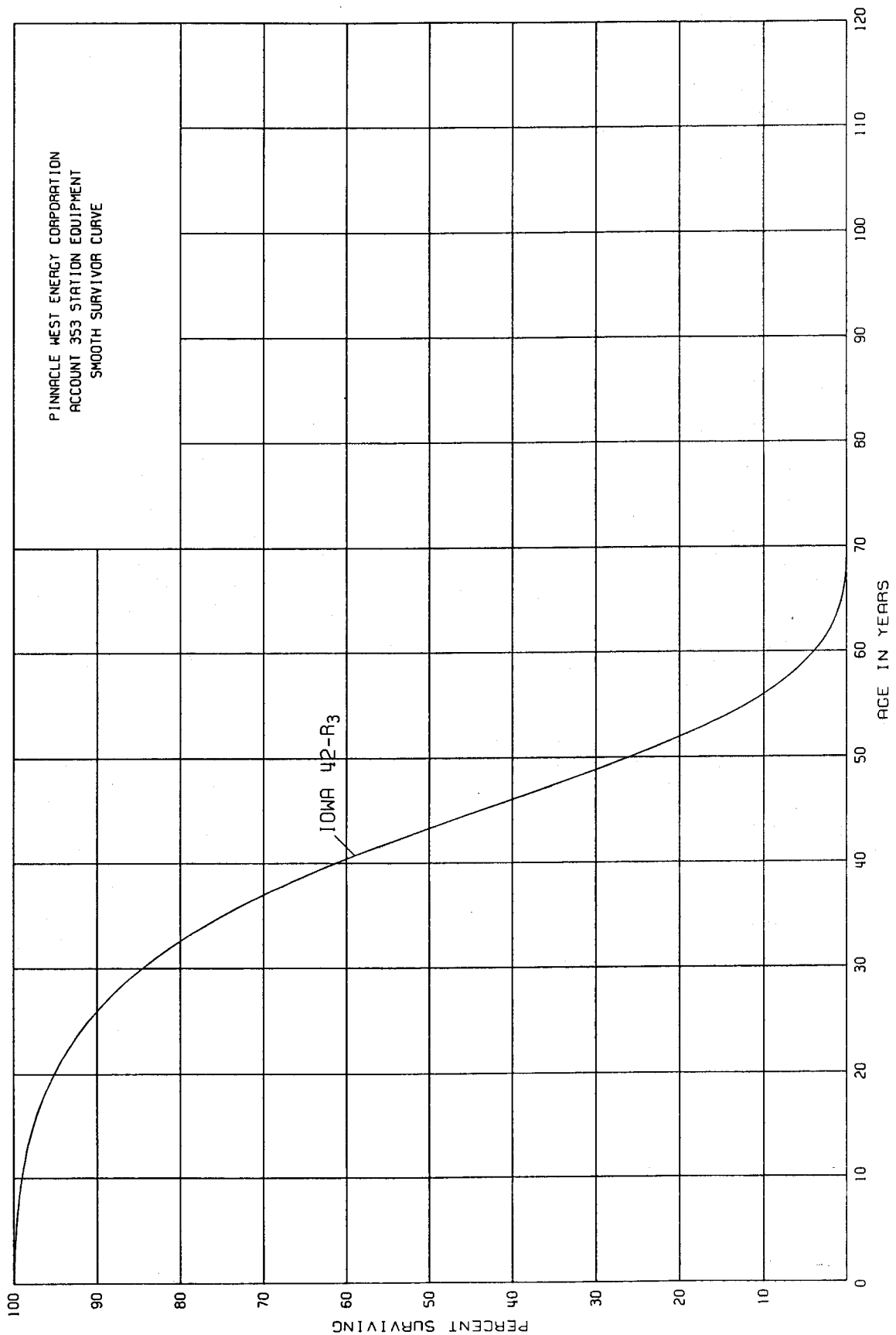
ORIGINAL LIFE TABLE

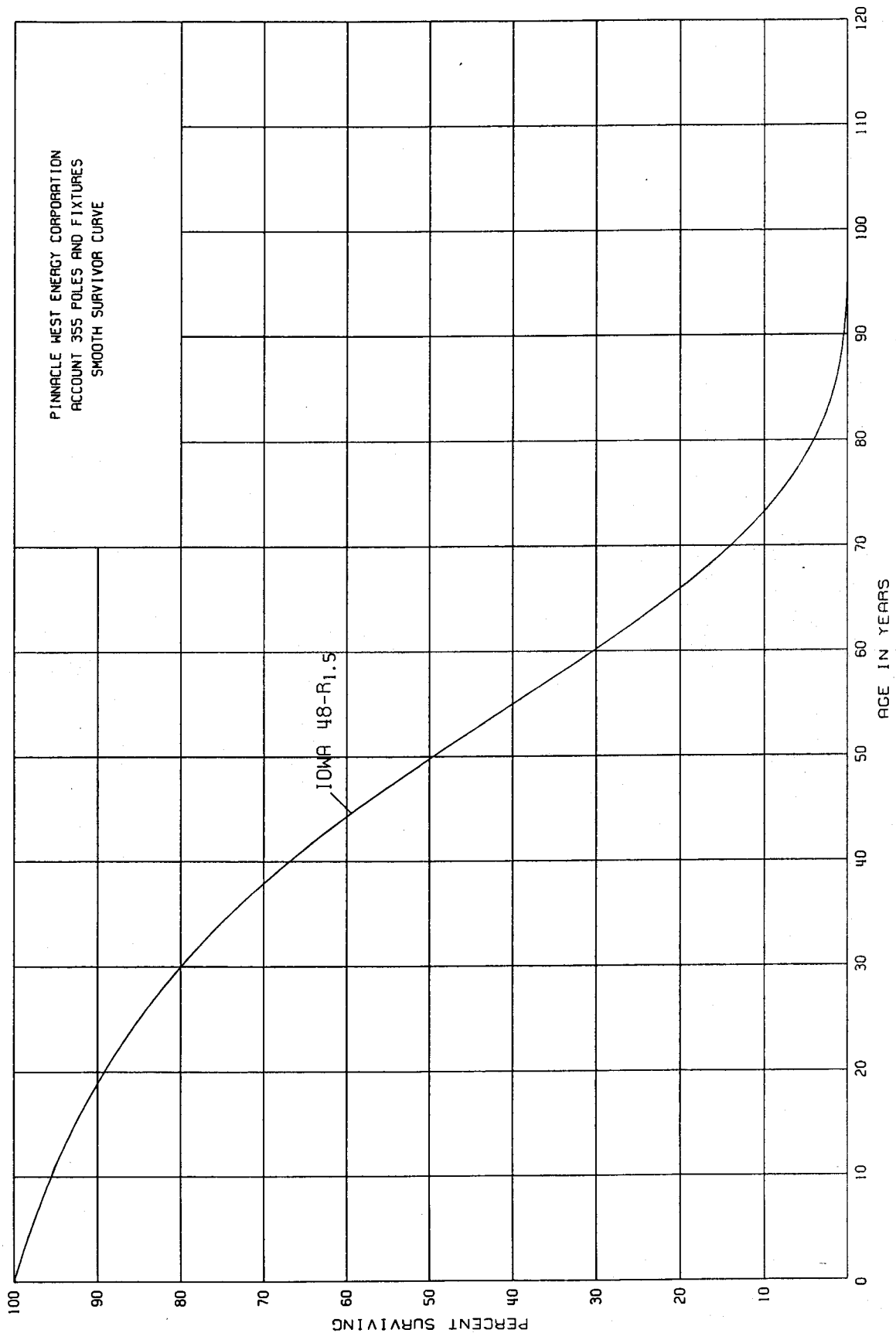
PLACEMENT BAND 2002-2012

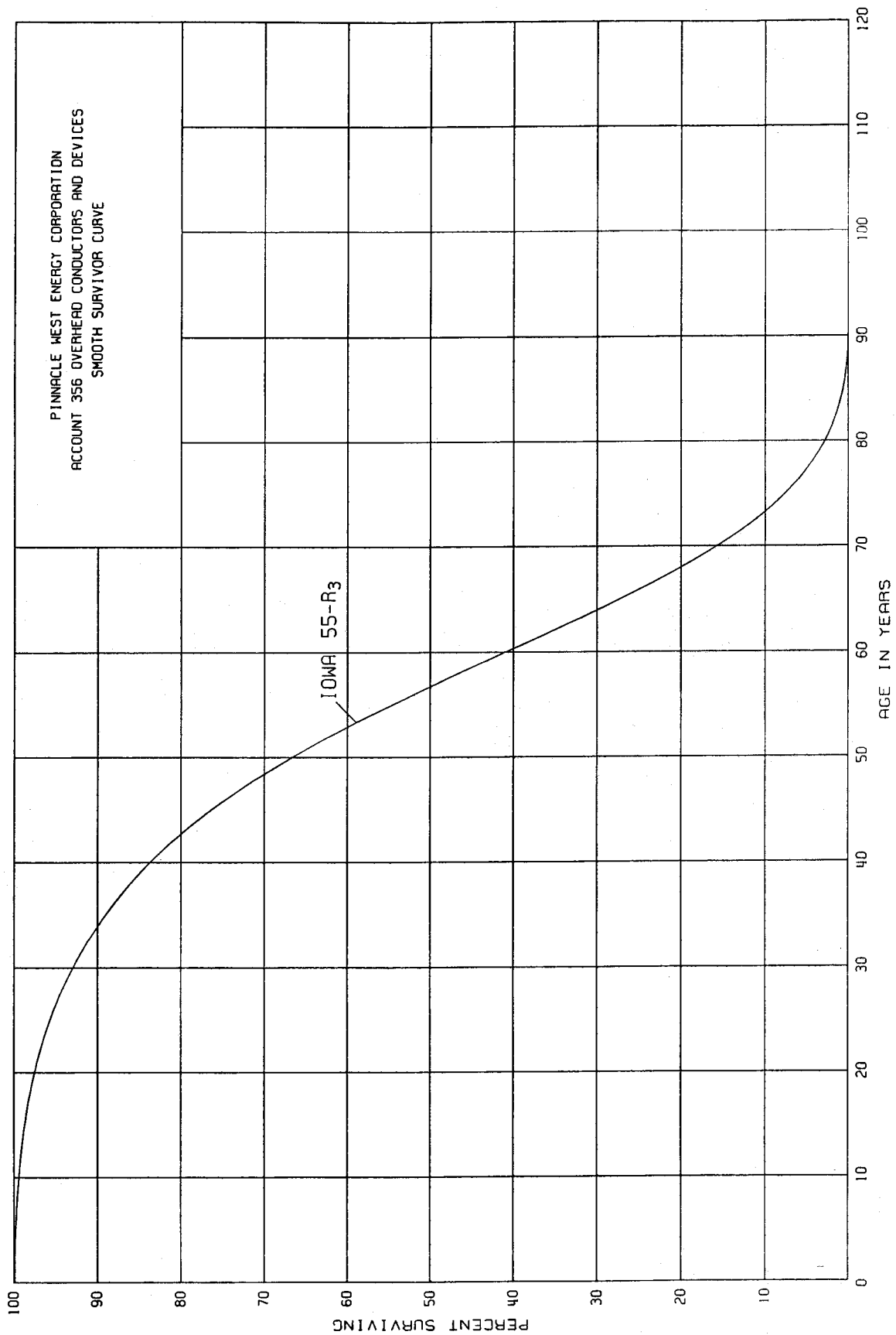
EXPERIENCE BAND 2002-2012

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	698,322,236		0.0000	1.0000	100.00
0.5	684,843,553		0.0000	1.0000	100.00
1.5	684,443,799		0.0000	1.0000	100.00
2.5	666,328,389	60,272,252	0.0905	0.9095	100.00
3.5	606,056,137		0.0000	1.0000	90.95
4.5	580,358,886	24,434,000	0.0421	0.9579	90.95
5.5	547,339,942	8,380,000	0.0153	0.9847	87.12
6.5	538,582,942	10,550,000	0.0196	0.9804	85.79
7.5	527,449,850		0.0000	1.0000	84.11
8.5	527,429,849		0.0000	1.0000	84.11
9.5	527,009,849		0.0000	1.0000	84.11
10.5					84.11









APPENDIX B
DEPRECIATION CALCULATIONS

PINNACLE WEST ENERGY CORPORATION

ACCOUNT 341 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WEST PHOENIX CC 4						
INTERIM SURVIVOR CURVE.. IOWA 80-S1						
PROBABLE RETIREMENT YEAR.. 6-2031						
NET SALVAGE PERCENT.. 0						
2001	3,768,898	191,460	234,108	3,534,790	28.05	126,017
	3,768,898	191,460	234,108	3,534,790		126,017
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT..					28.1	3.34

PINNACLE WEST ENERGY CORPORATION

ACCOUNT 342 FUEL HOLDERS, PRODUCTS AND ACCESSORIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WEST PHOENIX CC 4						
INTERIM SURVIVOR CURVE.. IOWA 70-S1						
PROBABLE RETIREMENT YEAR.. 6-2031						
NET SALVAGE PERCENT.. 0						
2001	4,135,109	211,304	257,106	3,878,003	27.86	139,196
	4,135,109	211,304	257,106	3,878,003		139,196
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT..					27.9	3.37

PINNACLE WEST ENERGY CORPORATION

ACCOUNT 343 PRIME MOVERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WEST PHOENIX CC 4						
INTERIM SURVIVOR CURVE.. IOWA 70-L1.5						
PROBABLE RETIREMENT YEAR.. 6-2031						
NET SALVAGE PERCENT.. 0						
2001	57,116,985	2,907,255	3,545,340	53,571,645	27.58	1,942,409
	57,116,985	2,907,255	3,545,340	53,571,645		1,942,409
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT..					27.6	3.40

PINNACLE WEST ENERGY CORPORATION

ACCOUNT 344 GENERATORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
REDHAWK CC 1 & 2						
INTERIM SURVIVOR CURVE.. IOWA 70-04						
PROBABLE RETIREMENT YEAR.. 6-2034						
NET SALVAGE PERCENT.. 0						
2002	546,899,426	6,726,863	9,255,982	537,643,444	24.05	22,355,237
WEST PHOENIX CC 4						
INTERIM SURVIVOR CURVE.. IOWA 37-R3						
PROBABLE RETIREMENT YEAR.. 6-2031						
NET SALVAGE PERCENT.. 0						
2001	14,296,553	749,139	897,926	13,398,627	26.76	500,696
SAGUARO CT 3						
INTERIM SURVIVOR CURVE.. IOWA 37-R3						
PROBABLE RETIREMENT YEAR.. 6-2032						
NET SALVAGE PERCENT.. 0						
2002	37,659,176	655,270	701,673	36,957,503	27.75	1,331,802
	598,855,155	8,131,272	10,855,581	587,999,574		24,187,735
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT..					24.3	4.04

PINNACLE WEST ENERGY CORPORATION

ACCOUNT 353 STATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
REDHAWK CC 1 & 2						
SURVIVOR CURVE.. IOWA 42-R3						
NET SALVAGE PERCENT.. 0						
2002	46,000,000	538,200	532,552	45,467,448	41.51	1,095,337
WEST PHOENIX CC 4						
SURVIVOR CURVE.. IOWA 42-R3						
NET SALVAGE PERCENT.. 0						
2001	1,953,105	68,359	121,193	1,831,912	40.53	45,199
	47,953,105	606,559	653,745	47,299,360		1,140,536
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT..					41.5	2.38

PINNACLE WEST ENERGY CORPORATION

ACCOUNT 355 POLES AND FIXTURES - STEEL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUT. BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
REDHAWK CC 1 & 2						
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. 0						

2002	1,500,000	13,350	17,032	1,482,968	54.51	27,205
	1,500,000	13,350	17,032	1,482,968		27,205

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT..	54.5	1.81
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PINNACLE WEST ENERGY CORPORATION

ACCOUNT 356 OVERHEAD CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AT DECEMBER 31, 2002

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
REDHAWK CC 1 & 2						
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. 0						
2002	1,500,000	13,350	17,834	1,482,166	54.51	27,191
	1,500,000	13,350	17,834	1,482,166		27,191
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT..					54.5	1.81



ARIZONA PUBLIC SERVICE COMPANY
Existing Amortization Rates and Projected Amortization Expense
For Test Year 2002. Also, Proposed Rates on
Assets Amortized and Transportation
and Power Operated Equipment's Depreciation Expense

Line No.	Amortization Group (a)	Description (b)	Original Cost at 12/31/02 (c)	Original Cost fully Amortized (d)	Accrual Rate (%) (e)	Projected Accrual Amt (f)	Line No.
1.	Intangibles	Organization	\$73,639	\$0	0.00%	\$0	1.
2.	301	Franchise and Constants	883,584	24,299	4.00%	34,371	2.
3.	302	PV Unit 2 Sale & Leaseback-Software	288,148	-	Over Life of lease	16,797	3.
4.	303L	Misc Intangible-Contributed Plant	10,454,392	4,148,359	10.00%	630,603	4.
5.	303	Misc Intangible -Mexico Tie	1,005,921	-	20.00%	201,184	5.
6.	303	Computer Software-5year life	95,319,618	38,793,537	20.00%	11,305,216	6.
7.	3031	Computer Software-10year life	94,482,296	-	10.00%	9,448,230	7.
8.	3032	Total Intangibles	202,507,598	42,966,195		21,636,401	8.
9.							9.
10.	Production	PV Unit 2 & Common-Sale & Leaseback	15,517,225	-	Over Life of lease	557,706	10.
11.	321-325	Leasehold Improvements					11.
12.	Land Rights	Limited Term Land Rights-Hydro Plants	64,500	-	Over Remaining Life of Plant	12,900	12.
13.	3303	Limited Term Land Rights-Transmission Lines	16,831,520	-	Over Life of Land Right	914,756	13.
14.	3503	Limited Term Land Rights-SCE	1,988,074	-	Over Life of Land Right	128,546	14.
15.	3503	Limited Term Land Rights-Distribution Lines	725,029	-	Over Life of Land Right	38,686	15.
16.	3603	Total Limited Term Land Rights	19,589,123	-		1,094,888	16.
17.							17.
18.	Distribution Plant	Distribution Plant Leased Property	435,292	179,394	Over Life of Each Lease	8,798	18.
19.	361,368,371						19.
20.	General Plant	Building Leasehold Improvement	11,160,324	-	Over Life of Each Lease	1,251,064	20.
21.	390	Office Furniture-New Proposed Amort. Rate			5.00%		21.
22.	391	Computer Hardware-New Proposed Amort. Rate			20.00%		22.
23.	391	Office Equipment- New Proposed Amort. Rate			10.00%		23.
24.	391	Capital Lease-Computer Equipment	5,940,563	-	Over Life of Each Lease	1,978,208	24.
25.	391	Capital Lease-Transportation Vehicles	19,553,408	-	Over Life of Each Lease	3,314,600	25.
26.	392	Transportation Vehicles	27,441,612	13,170,020	Depreciated by Vehicle Class	776,666	26.
27.	392	Stores Equipment- New Proposed Amort. Rate			5.00%		27.
28.	393	Tools, Shop, & Garage Equip.- New Proposed Amort. Rate			5.00%		28.
29.	394	Laboratory Equipment- New Proposed Amort. Rate			6.67%		29.
30.	395	Power Operated Equipment	27,947,651	13,683,982	Depreciated by Vehicle Class	787,053	30.
31.	396	PV Common Sale & Lease Back	245,938	-	Over Life of Lease	8,943	31.
32.	397	Miscellaneous Equipment- New Proposed Amort. Rate			5.00%		32.
33.	398	Total General Plant	92,289,496	26,854,002		8,116,534	33.
34.							34.
35.	Total		\$330,338,734	\$69,999,591		\$31,414,327	35.

Testimony
of

Charles E. Olson,
Ph.D.

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DIRECT TESTIMONY OF CHARLES E. OLSON

On Behalf of Arizona Public Service Company

Docket No. E-01345A-03-__

June 27, 2003

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(Docket No. E-01345A-03-___)

Q. PLEASE STATE YOUR NAME AND ADDRESS.

A. Charles E. Olson, 10822 Alloway Drive, Potomac, Maryland, 20854.

Q. WHAT IS YOUR OCCUPATION?

A. I am an economist.

I. QUALIFICATIONS

Q. PLEASE OUTLINE YOUR EDUCATION AND EXPERIENCE.

A. I attended and received the following degrees from the University of Wisconsin at Madison: B.B.A. in 1964 (Senior Honors), M.S. in 1966, and Ph.D. in 1968. My doctoral dissertation analyzed the structure of the electric power industry.

I joined the University of Maryland in 1968 as an Assistant Professor and taught full-time in the College of Business and Management. I taught graduate courses in managerial economics, public utilities and transportation and undergraduate courses in public utilities and transportation.

In 1971, I was appointed Associate Professor and held that position until I left in September 1976 to join Zinder Companies, Inc. (Zinder) as Senior Economist. In December 1977, I was elected Vice President and in December 1979, I was elected Senior Vice President. In September 1980, I resigned to organize my own firm. I returned to Zinder in December 1986 as its President. In November 2000 I resigned as President of Zinder. Currently, I am a Teaching Professor at the University of Maryland, Robert H. Smith School of Business where I teach

1 courses in economics. I am also a public utility consultant for the electric power
2 industry.

3
4 During the past 34 years, I have authored and co-authored various papers,
5 articles, reports and other published material. These have been published in
6 Public Utilities Fortnightly, Land Economics, Transportation Journal, Business
7 Horizons, and Highway Research Record. The Institute of Public Utilities at
8 Michigan State University published a revised version of my thesis, which is titled
9 "Cost Considerations for Efficient Electricity Supply." I have also contributed to
10 two other volumes, Studies in Electric Utility Regulation (Ballinger Publishing Co.,
11 1975) and Regional Economic Effects of Alternative Highway Systems (Ballinger
12 Publishing Company Co., 1974).

13
14 I have given speeches, workshops and papers to many groups, both academic
15 and business. I was a coordinator and lecturer in the American Gas
16 Association's Annual Rate Fundamentals Course at the University of Wisconsin
17 from 1971 to 1996. The topics I have lectured on in this course include utility
18 pricing, utility accounting, rate level determination, cost of capital and cost of
19 service analysis. I also have lectured at other American Gas Association short
20 courses.

21
22 During the past 30 plus years as a consultant, I have worked on more than 400
23 rate and certificate cases and have presented testimony more than 300 times. I
24 have testified before the Federal Communications Commission, the Postal Rate
25 Commission, the Federal Energy Regulatory Commission (FERC), the Interstate
26 Commerce Commission, the New York Energy Planning Board, the Dallas and

1 Beaumont City Councils and public utilities commissions in 40 states, the District
2 of Columbia and three Canadian provinces. The cases involved electric, gas,
3 water and telecommunications utilities. I have also testified in oil pipeline and
4 taxi cases. My testimony covered numerous subjects including fair rate of return,
5 rate base, revenue requirements, revenue and expense adjustments, pricing and
6 rate design.

7
8 In addition, I have been a consultant on numerous other projects and studies
9 including a study of the Uniform System of Accounts for telephone companies
10 and a study of entry and fare determination policies for the taxicab industry in
11 Washington, D.C. Working for the Development Advisory Service of Harvard
12 University, I advised the government of Colombia on public utility rates. From
13 1977 to 1978, I directed a demand study for the gas distribution utilities in New
14 York. Finally, I also directed a study on gas rate design for the Economic
15 Regulatory Administration from 1977 to 1978.

16
17 I have also done a significant amount of community service work, testifying in a
18 number of cases on a pro bono basis. I have presented testimony before two
19 congressional committees. I was a member of two Federal Power Commission
20 (FPC) National Power Survey Advisory Committees. Finally, I was Vice
21 Chairman of the former FPC's Gas Policy Advisory Council: Transmission,
22 Distribution and Storage-Technical Advisory Task Force-Rate Design.

23
24 Lastly, I am a member of the Transportation and Public Utilities Group of the
25 American Economic Association and I am listed in Who's Who in America.

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II. PURPOSE OF TESTIMONY

Q. WHAT IS YOUR ASSIGNMENT IN THIS CASE?

A. Arizona Public Service Company (APS or the Company) has requested that I conduct a study to determine the appropriate return on common equity for the Company.

III. IDENTIFICATION OF SUPPORTING ATTACHMENTS

Q. DO YOU SPONSOR AN EXHIBIT IN SUPPORT OF YOUR TESTIMONY?

A. Yes. I sponsor Attachments CEO-1 through CEO-8. These Attachments were prepared by me or under my direction and supervision.

IV. SUMMARY OF TESTIMONY

Q. WOULD YOU PLEASE SUMMARIZE YOUR TESTIMONY?

A. Yes. Based on the analyses that I have done, I recommend that APS be authorized a return on common equity capital of 11.25 to 11.75 percent. My opinion is based on discounted cash flow (DCF) studies of a group of comparable electric and combination companies and of Pinnacle West Capital Corporation (Pinnacle West), APS' parent. The results of my DCF analyses were further validated using the risk premium method. In my view, APS requires a return on common equity of between 11.25 and 11.75 percent.

V. OVERVIEW OF COST OF CAPITAL

Q. WILL YOU PLEASE EXPLAIN THE MEANING OF THE FAIR RATE OF RETURN?

A. Any business, whether regulated or unregulated, must earn enough dollars of profit to compensate present investors if new capital is to be attracted on

1 reasonable terms and existing capital is to be retained. If capital cannot be
2 attracted and retained on reasonable terms, a business will have difficulty
3 providing reliable and adequate service. If such a condition persists, the firm will
4 eventually have difficulty staying in business. The fair rate of return is a
5 percentage figure, which, when applied to the appropriate rate base, will yield the
6 earnings required to attract capital on reasonable terms. This amount, known as
7 the earnings requirement, must be added to reasonable operating expenses,
8 depreciation and taxes to determine the total revenue requirement that must be
9 obtained from the rates charged.

10 Q. HOW SHOULD THE RATE OF RETURN BE DETERMINED UNDER PUBLIC
11 UTILITY REGULATION?

12 A. The prevention of monopoly profits, i.e., a competitive result, suggests that the
13 purpose of public utility regulation with respect to rate of return is to permit the
14 regulated company to earn its cost of capital. By permitting a regulated company
15 to earn its cost of capital, regulation should prevent inadequate earnings as well
16 as limiting monopoly profits. Earnings levels above the cost of capital in the long-
17 run imply excessive profits; likewise, earnings levels below the cost of capital
18 indicate inability to attract capital on reasonable terms.

19
20 Presumably, a public utility could earn more than its cost on the majority of its
21 projects; otherwise, there would be no reason for its being regulated. If the rate
22 level objective of utility regulation is to approximate what would happen in
23 competitive markets, then it follows that the average expected return on new
24 investment is held to the cost of capital. This does not mean that all services
25 should be expected to earn the cost of capital; the regulatory agency may have

1 public policy-dictated, non-rate level objectives that call for cross-subsidy
2 between services or classes of customers. The point is that the average
3 expected rate of return on new investment in total should be equal to the cost of
4 capital if the competitive norm is taken as the standard.
5

6 A rate of return based on the cost of capital approach is consistent with the
7 guidelines set forth by the U.S. Supreme Court in the Bluefield (262 U.S. 679
8 [1923]) and Hope (320 U.S. 591 [1944]) cases, as affirmed by the Court in
9 Duquesne Light Company v. Barasch, decided January 11, 1989 (98 PUR 4th
10 253 [1989]). Essentially these cases require that utilities be authorized returns
11 that: (1) are comparable to alternative investment opportunities of corresponding
12 risk, (2) permit capital attraction on reasonable terms and (3) maintain financial
13 integrity. A rate of return based on the cost of capital of the company whose
14 rates are at issue is consistent with these standards.
15

16 The Supreme Court did not quantify what it meant by capital attraction on
17 reasonable terms and financial integrity. In the Hope case, financial integrity and
18 capital attraction were not tied directly to bond ratings, common equity ratios or
19 financial ratios. However, the financial condition of the utility was discussed. It
20 was noted that Hope Natural Gas Company was 100 percent common equity
21 financed and that the yields on better issues of bonds of natural gas companies
22 were close to 3 percent. Hope had protected, established markets and an
23 adequate gas supply. The Commission (Federal Power Commission) had
24 concluded that Hope was in "... a strong position to attract capital upon favorable

1 terms when it is required." The authorized return was 6.5 percent, or more than
2 double the going rate on better gas company bond issues.
3

4 Viewed in this historical perspective, it is difficult to read the Hope case or the
5 earlier Natural Gas Pipeline case (315 U.S. 575 [1942]) without concluding that a
6 utility's bonds should be rated solid A or higher and its common stock should
7 have a market-to-book ratio of at least 1:1. There are simply too many
8 references to sound financial parameters and not even a suggestion that there
9 might be difficulty attracting capital on reasonable terms.

10 Q. HOW IS THE FAIR RATE OF RETURN DETERMINED FOR A REGULATED
11 ENTERPRISE?

12 A. The fair rate of return is determined through the use of the cost of capital
13 approach. Under the cost of capital approach, separate determinations are
14 made of the cost of each type of capital utilized by the utility. If, for example, a
15 utility is financed with long-term debt, preferred stock and common equity, the
16 cost of each of these components is estimated individually. Then the cost rate of
17 each component is weighted by the appropriate percentage that it bears to the
18 overall capitalization. The sum of the weighted cost rates is the overall cost of
19 capital and is used as the basis of the fair rate of return.
20

21 VI. DESCRIPTION OF METHODOLOGY

22 Q. PLEASE EXPLAIN THE STEPS YOU FOLLOWED IN DEVELOPING YOUR
23 RECOMMENDED RATE OF RETURN ON COMMON EQUITY CAPITAL FOR
24 APS.

1 A. I began by examining the proposed capital structure. Next I developed an
2 estimate of the return that investors would require to invest in the common stock
3 of APS. Toward this end, I prepared a study of the cost of common equity to
4 APS using a DCF analysis of a group of electric, as well as combination electric
5 and gas companies. I checked the reasonableness of my DCF result for APS by
6 also doing a DCF study of Pinnacle West, and finally by using the risk premium
7 approach.

8 Q. WHAT MATERIALS DID YOU UTILIZE IN THE PREPARATION OF YOUR
9 TESTIMONY AND EXHIBITS?

10 A. Most of the information I utilized was from standard financial sources, such as
11 annual reports and financial reports. In addition, I have testified in previous APS
12 cases. I believe that I am familiar with the economic, financial and regulatory
13 issues that have and will have an impact on the ability of APS to attract capital in
14 the future.

15 Q. WHAT CAPITAL STRUCTURE IS PROPOSED BY APS IN ITS FILING IN THIS
16 CASE?

17 A. The proposed capital structure is dependent upon whether or not some \$500
18 million of debt becomes a permanent part of the Company's capital structure,
19 which in turn depends on whether the generation assets supported by that debt
20 are included in APS' rate base. The capital structure as of 12/31/02 consists of
21 approximately 50 percent long-term debt and 50 percent common equity. If the
22 PWEC-related debt is incorporated into that capital structure, leverage is
23 increased to 55% debt and just 45% common equity. APS has no preferred
24 stock at this time.

1 Q. ARE THE CAPITAL STRUCTURE ALTERNATIVES PROPOSED BY APS
2 REASONABLE ONES TO UTILIZE FOR RATEMAKING PURPOSES IN THIS
3 CASE?

4 A. Yes, they are given the Company's assumption that the Pinnacle West Energy
5 Corporation (PWEC) Arizona generation assets are going to be included in rate
6 base. The overall rate of return that is applied to the rate base is the product of
7 three variables: capital structure, embedded cost of long-term debt capital, and
8 the appropriate return on common equity. In that the objective of ratemaking with
9 respect to return is a reasonable "end-result," it is not appropriate to view one of
10 the variables that impacts on the total return dollars in isolation. The common
11 equity ratio proposed in this case is also reasonable relative to the debt ratio with
12 which it is combined and the recommended return on common equity capital.
13

14 Ultimately, a reasonable "end-result" can only be judged in terms of whether it
15 will permit capital attraction on reasonable terms. At the most basic level, the
16 equity ratio must be high enough to permit additional debt capital to be issued at
17 any time without an adverse effect on APS' credit rating. If the capital structure
18 does not permit some margin for additional debt financing at all times, APS is
19 subject to the potential adverse impact of unanticipated tight credit conditions.

20 Q. DO THE COMPANY'S TWO ALTERNATIVE CAPITAL STRUCTURES AFFECT
21 YOUR RECOMMENDED COST OF EQUITY?

22 A. No. Each is consistent with its underlying fundamental assumption concerning
23 the ratemaking treatment of the PWEC generating assets and thus, for my
24 purposes, more or less equivalent. If APS is not permitted to acquire and rate
25 base the PWEC assets, PWEC will have to fully repay its loan from

1 APS when due in early 2007. As a result, the proceeds will likely be used to pay
2 off APS debt, thus returning APS to roughly the same capital structure ratios as
3 in effect at the end of the 2002 test period. I say this because without those
4 assets, APS will be correspondingly far more dependent upon the vagaries of the
5 wholesale market for power supplies to meet its public service obligation. In
6 addition, the financial community imputes a portion of the value of long-term
7 power contracts onto the balance sheet as debt. Both of these factors entail
8 more risk for APS that must be compensated for by a more conservative capital
9 structure.

10 Q. PLEASE DISCUSS THE RELATIONSHIP BETWEEN CREDIT CONDITIONS
11 AND CAPITAL STRUCTURE FOR A REGULATED UTILITY.

12 A. The Federal Reserve Board controls the supply of money in the United States.
13 Because it is widely believed that there is a close relationship between growth in
14 the money supply and inflation, the concern exists that the growth in money
15 supply will be slowed or even halted by the Federal Reserve Board. Thus, when
16 inflationary pressures exist, a natural policy reaction is to slow monetary growth.
17 This in turn produces tight credit conditions, difficulty in borrowing and a
18 depressed stock market.

19
20 Credit conditions during 1974 and 1975 provide an example of the risk
21 associated with a low equity ratio and substantial external financing
22 requirements. After a sharp increase in the world price of oil in early 1974,
23 combined with a phase-out of domestic price controls, the inflation rate
24 accelerated to the double-digit level. Public utility debt financing became very
25 difficult to obtain, and stock prices plunged. As a result, the construction

1 programs of many utilities had to be reduced (often at great ultimate cost to
2 customers) and common stock had to be issued at prices well below book value,
3 thus diluting stockholder equity.
4

5 The period between 1980 and 1982 was also characterized by difficult credit
6 conditions. Inflation accelerated to double-digit levels in 1979, partly as a result
7 of sharp increases in oil prices. The money supply was increasing at a rapid
8 rate; interest rates increased significantly. The Federal Reserve Board reacted
9 by announcing that it would act to directly control the money supply, instead of
10 attempting to control interest rates as had been done previously. As a result,
11 interest rates reached very high levels during the 1980 to 1982 period. The
12 prime rate exceeded 20 percent during this period, and interest rates on utility
13 bonds exceeded 17 percent. Credit was available but exceedingly costly.
14

15 Currently (June 2003), financial markets are affected by uncertainty relative to
16 the Federal budget, the foreign trade deficit, monetary policy, potential inflation
17 and the lack of economic growth. Relative to the inflation rate, the cost of credit
18 is on the high side because of nervousness about the economic situation. Given
19 that there has been more instability in the capital markets during the past 30 plus
20 years than existed in the 1950's and 1960's, lower long-term debt ratios are
21 necessary to protect bond ratings and to maintain financial flexibility. In my view,
22 the Commission should set APS' rates at a level that provide an opportunity to
23 attract capital without dilution of existing equity or loss of creditworthiness.

1 Q. PLEASE EXPLAIN THE DCF METHODOLOGY YOU WILL USE TO ESTIMATE
2 THE RATE OF RETURN ON ORIGINAL COST COMMON EQUITY CAPITAL IN
3 THIS CASE.

4 A. Equity owners share in the residual that remains from revenues after expenses,
5 including interest, are paid. Thus, there is no contractual relationship as to
6 required earnings between the common stockholder and the corporation.
7 Earnings on equity can only be judged in terms of whether they produce market
8 prices for the common shares that permit capital attraction on terms that are
9 considered fair and reasonable.

10
11 From an investor's viewpoint, the cost of common equity of a given company is
12 the minimum expected return which will induce him to buy stock at the going
13 market price. Thus, the focus must be on what a reasonable investor – and not
14 the analyst or the regulator– would consider is a reasonable expected return.
15 Similarly, it is expected returns, not just present and certainly not past returns,
16 that are relevant. For example, if an investor will buy a stock that is selling at
17 \$20.00 per share but will not buy it at a higher price, and expects to receive
18 \$1.20 in dividends and to sell it in exactly one year at \$21.20, the cost of capital
19 is 12 percent, as shown below:

20 Dividend Yield = (\$1.20 ÷ \$20.00) = 6%

21 Growth = (\$21.20 ÷ \$20.00) - 1 = 6%

22 Cost of common equity (k) = 12%

23 Unfortunately, the task is not this easy because we can not know directly what
24 investors really expect when they decide to buy a given stock but must infer such
25 expectations from the application of judgment to available market data.

1
2 In my opinion, the most reasonable way to go about estimating the cost of
3 common equity is to utilize the DCF approach. The DCF approach to estimating
4 the cost of equity capital is based on the logical premise that the investor is
5 buying two things when he purchases common stock, dividends and growth.
6 Investors in American corporations have come to expect growth in earnings and
7 dividends per share of common stock because of a public policy that is
8 committed to continuously increasing Gross Domestic Product (GDP). In
9 addition, the experience of most U.S. corporations since the end of World War II
10 has been one of increased dividends and earnings per share. The cost of equity
11 capital using the discounted cash flow method is that discount rate which
12 equates a given market price of a stock with the expected future flow of
13 dividends.
14

15 The discounted cash flow method is frequently expressed as a formula in which
16 "k", the cost of capital, is equal to D/MP (dividends divided by market price), the
17 dividend yield, plus "g", expected growth in dividends. Thus:

$$k = D/MP + g$$

18
19
20 In utilizing this formula it must be assumed that "g" can not exceed "k" because
21 that implies negative dividends. It must also be assumed that a growth rate, "g",
22 that is mathematically equivalent to a levelized rate of growth to infinity can be
23 estimated. Mathematically this is always true, but even if it were not, it is not
24 important for purposes of application. This is the case because the discounting
25 of income streams far in the future has little consequence for the present value of
26 a security.

1
2 Implementation of the DCF approach requires the exercise of judgment
3 concerning how investors collectively estimate a firm's "g". The real question is
4 what affects investor expectations. Estimating investor expectations is a difficult
5 task because of the many factors that affect capital markets in general and
6 common stocks in particular. The current state of the economy, Federal budget
7 uncertainty, the trade deficit, fiscal policy, expected inflation, foreign exchange
8 rates and Federal Reserve Board policy all impact significantly on investor
9 judgments. In addition to these factors, the appropriate return on equity for APS
10 is governed by all of the specific factors that influence its particular situation.

11 Q. WHAT INFORMATION IS AVAILABLE AND USEFUL FOR PURPOSES OF
12 MAKING A DCF ESTIMATE OF THE COST OF EQUITY CAPITAL FOR APS?

13 A. Investors are aware of current conditions in the economy. Significant factors
14 include the current budget and trade deficits, concerns about higher inflation,
15 unemployment and uncertainty regarding fiscal policy. The type of information
16 discussed at some length below is available in detail, particularly in this age of
17 the worldwide web. Presumably, investors utilize it, understand the state of the
18 economy and have their own expectations about GDP growth, interest rates and
19 other factors. These opinions influence their return expectations and thereby
20 determine the maximum price they will pay for various types of securities. Thus,
21 because investors take the economic situation into account in their decision-
22 making, information concerning the economy is reflected in the prices of stocks
23 and bonds at any given time.

24 Q. PLEASE EXPLAIN SOME OF THE ECONOMIC FACTORS THAT
25 INVESTORS MIGHT CONSIDER IN THEIR DECISION MAKING.

1 A. Federal budget deficits have been high historically, and after a short period of
2 modest surplus, are again in deficit. At the end of the federal government's 2002
3 fiscal year (September 30, 2002), the accumulated federal debt was somewhat
4 above \$6 trillion. Currently, a deficit is projected for future years' budgets.
5

6 In addition to the budget deficit, the nation's merchandise trade deficit has been
7 large and growing in recent years. It has increased from \$132.6 billion in 1993 to
8 approximately \$434.2 billion in 2002. Trade deficits at these levels are high
9 enough to be of concern because of the foreign debt they create.
10

11 The U.S. unemployment rate in May 2003 was 6.1 percent. This is at or near the
12 top of the range which most economists view as the natural or expected rate of
13 unemployment. The natural rate of unemployment is the rate at which there is no
14 tendency for inflation to accelerate or decelerate. With unemployment at 6.1
15 percent, the inflation rate will have a tendency to be stable. This seems to be the
16 current market view. Over the past 5 years the increase in consumer prices has
17 ranged from a low of 1.6 percent in 1998 to a high of 3.4 percent in 2000. Page
18 1 of Attachment CEO-1 provides a summary of changes in the Consumer Price
19 Index ("CPI") over the last 13 years.
20

21 Real GDP decreased in 1991 at a rate of -0.5 percent. Since then the rate of
22 increase has ranged from 0.3 to 4.4 percent. GDP data for the 1990 to 2002
23 period are shown on page 2 of Attachment CEO-1.
24

25 Money supply ("M2") growth in 1994 was 0.4 percent, a very low figure. However
26 the growth rate was 4.1 percent in 1995, increasing to 10.2 percent in 2001. The

1 2002 growth rate was 6.3 percent. Growth data for the M2 measure of money
2 supply are shown on Attachment CEO-1, page 3 of 4. The growth rate in money
3 supply can impact the cost of capital because it has an influence on the inflation
4 rate.

5 Q. PLEASE EXPLAIN THE RISK PREMIUM APPROACH TO ESTIMATING THE
6 COST OF COMMON EQUITY CAPITAL.

7 A. The risk premium approach is based on the premise that common stocks are
8 riskier than bonds. Consider the case of a given corporation. The bondholder
9 has a prior claim on the assets of the company in the event of bankruptcy as well
10 as on the earnings of the company while it is in operation. The common
11 shareholder receives the residual earnings from operations. The bonds of a
12 corporation are thus less risky than the common shares.

13
14 In The Stock Market: Theories and Evidence (published in 1973), Lorie
15 and Hamilton have made the following observation at page 214:

16 It is perfectly clear that bonds are less risky than stocks
17 when both classes of securities are issued by the same
18 corporation. Since bondholders have a prior claim to the
19 earnings and assets of the corporation the rates of return on
20 bonds are less variable and more confidently predicted than
21 rates of return on the common stock. This fact is so obvious
22 that it has not been studied and does not require study.

23 This same point has been made by Myers:

24 Interest rates on corporate bonds and other debt instruments
25 can be readily observed to provide a floor for the estimate.

1 Changes in the basic level of interest rates normally
2 correspond in direction to changes in the cost of equity
3 capital. (Stewart C. Myers, Bell Journal of Economics,
4 Spring 1972, p. 65.)
5

6 Both James Lorie and Stewart Myers are well-known and highly respected
7 professors of finance, Lorie at the University of Chicago and Myers at MIT.
8 Primarily because of the difficulty in selecting an appropriate time period to use to
9 estimate an expected risk premium, this approach can produce a wide range of
10 results. It should be used only as a check for that reason.
11

12 VII. APPLICATION OF DCF

13 Q. YOU HAVE EXPLAINED THAT YOU UTILIZE THE DCF APPROACH FOR
14 PURPOSES OF DETERMINING THE RETURN ON COMMON EQUITY
15 CAPITAL. YOU HAVE ALSO INDICATED THE KINDS OF ECONOMIC
16 INFORMATION THAT INVESTORS CONSIDER IN ANALYZING POTENTIAL
17 INVESTMENTS AND HOW THIS INFORMATION IS "EMBEDDED" IN
18 SECURITY PRICES. WOULD YOU EXPLAIN HOW YOU WILL APPLY THE
19 DCF APPROACH IN THIS CASE?

20 A. The rates at issue in this case are the retail rates of Arizona Public Service
21 Company. APS is part of Pinnacle West and therefore does not have traded
22 common shares. For this reason, a proxy or proxies of companies with market
23 costs of common equity must be employed in DCF analysis. To estimate the
24 cost of equity to APS, I will perform two DCF proxy analyses – one of a group of
25 comparable electric and combination electric and gas companies and one of

1 Pinnacle West, the parent of APS. Pinnacle has some non-utility activities and
2 investments. However, at this time, Pinnacle West's business is primarily that of
3 regulated electric service, with close to 100 percent of its income derived from
4 APS.

5 Q. WHAT MARKET INFORMATION IS AVAILABLE TO INVESTORS REGARDING
6 PINNACLE WEST AND THE COMPANIES IN YOUR GROUP OF
7 COMPARABLE DISTRIBUTORS?

8 A. Investors have ready access to have the following information:

- 9 (1) Market price data for common shares;
- 10 (2) Past and present dividends;
- 11 (3) Past and present earnings;
- 12 (4) Past, present and forecasted capital expenditure data;
- 13 (5) Yields on bonds and preferred stock;
- 14 (6) Short term forecasts by security analysts for earnings and
15 dividends; and
- 16 (7) Regulatory commission rulings.

17 Q. HOW IS THIS INFORMATION UTILIZED BY INVESTORS?

18 A. It is reasonable to assume that it is utilized in investment decision-making. In all
19 likelihood, the more recent the information, the more weight it is given. However,
20 it is not reasonable to expect that past trends are ignored, especially if these past
21 trends were the result of events or regulatory actions that will or reasonably could
22 reoccur in the future. In addition to the above market information, investors are
23 aware of statements by management and know that the companies such as APS
24 are involved in significant regulatory proceedings.

1 Q. PLEASE EXPLAIN HOW YOU HAVE IMPLEMENTED THE DCF APPROACH IN
2 YOUR ANALYSIS OF THE COMPARABLE UTILITIES.

3 A. Attachment CEO-2 is a listing of the six electric and combination companies
4 other than Pinnacle West that make up my group of comparable or selected
5 comparable companies. All of the companies have a 2002 revenue level
6 between \$1 and \$15 billion. Pinnacle West's 2002 revenue was almost \$3
7 billion. All of these companies have electric generation facilities and some have
8 merchant generation. They are all listed as electric utilities by Value Line
9 Investment Survey and derive the bulk of their income from electric operations.

10
11 Attachment CEO-3 presents common equity ratio data, as reported by Value
12 Line, for the six electric and combination companies for 2002. The average
13 common equity ratio for the group was 39.1 percent. This is below common
14 equity ratio reported for Pinnacle West of 50.0 percent. In my view, the
15 difference between the 50 percent common equity ratio for APS and the 39
16 percent for the comparables is not significant because the bond ratings of the
17 comparables are so close to those of APS.

18
19 APS first mortgage debt is rated A-/A3. The bond ratings of the six comparable
20 electric and combination companies are presented on Attachment CEO-4. The
21 median rating by S & P is A-/BBB+ and by Moody's is A3. I limited my selection
22 of comparable electric and combination companies to those with Standard and
23 Poor's bond ratings of BBB+ to A and Moody's bond ratings of Baa1 to A2. Thus
24 all of them are within one rating of APS' Standard and Poor's rating of A- and
25 Moody's rating of A3. In my view, I have been conservative by using APS' first

1 mortgage bond ratings for purposes of selecting comparable companies. There
2 are two reasons for my conservative approach. First, APS will no longer have a
3 mortgage after 2004 and as a result, its unsecured rating is likely to increase.
4 Second, I would rather have a slightly less risky group of comparables than to err
5 on the high side.

6 Q. WHAT IS SHOWN ON ATTACHMENT CEO-5?

7 A. Attachment CEO-5, shows the market-to-book ratios of the comparable
8 companies I have selected for use in this case. Every company has a market-to-
9 book ratio of 1.00 times or higher and the group average is 1.67 times. For the
10 DCF model to reflect investor expectations, the authorized return on book value
11 should recognize market-to-book ratios above 1.0 times. That is because
12 investors would not purchase the stock if they expected it to fall in price. As
13 shown on the bottom line of Attachment CEO-5, Pinnacle West has a market-to-
14 book equity ratio of 1.14 times, well below the group average. This is an
15 indication that investors do not expect APS to earn more than its cost of capital.

16 Q. WHAT DIVIDEND YIELD SHOULD BE UTILIZED FOR THOSE COMPANIES?

17 A. Attachment CEO-6 shows the dividend yields for the six selected companies for
18 the period December 2002 through May 2003. I believe this period is long
19 enough to smooth short-term fluctuations and short enough to avoid the use of
20 stale data. The dividends used are at the current annual rate. The range in the
21 dividend yields is from 4.18 to 7.67 percent and the mean is 5.92 percent. The
22 median is 5.72 percent. Based on the information that is currently available, my
23 view is that a yield of 5.92 percent is appropriate.

1 Q. WHAT GROWTH RATE IS EXPECTED BY INVESTORS FOR THE ELECTRIC
2 COMPANIES YOU HAVE SELECTED?

3 A. Attachment CEO-7 presents the First Call consensus 5-year projected earnings
4 growth rates for the group of electric and combination utilities. There are a
5 number of organizations, such as Merrill Lynch, that provide individual estimates
6 of expected growth, but there are two organizations that compile these estimates
7 and publish consensus data. Zacks is one of these. The other is First Call. The
8 average First Call consensus estimate of expected earnings growth for the
9 comparable electric and combination companies in May 2003, as shown on
10 Attachment CEO-7, is 5.2 percent. The median is 5.0 percent. (The projected
11 growth rate for Pinnacle West is 5.0 percent.) The First Call growth rates are
12 easily available to investors at Yahoo Finance, simply by clicking on Research.
13 There is no charge for this information. It should also be noted that consensus
14 forecasts for dividend growth are unavailable.

15
16 I have not presented any attachments that show historical growth rates. Based
17 on past experience, I know there is substantial variation in these growth rate data
18 for a variety of reasons and that it is difficult to draw meaningful and unbiased
19 conclusions from these numbers. Perhaps more to the point, it is also known
20 that financial analysts who make earnings forecasts are aware of historical
21 growth rates. This means the historical information is reflected in these forecasts
22 to the extent deemed relevant. Therefore, it is not necessary to use it again as a
23 separate set of data, with the attendant judgmental input, in deriving an
24 estimated dividend growth rate.

1 Q. WHAT IS YOUR CONCLUSION AS TO THE PROPER GROWTH RATE TO
2 UTILIZE IN YOUR DCF ANALYSIS OF THE COMPARABLE COMPANIES?

3 A. In my view, investors expect a rate of growth between 5.00 and 5.50 percent for
4 this group. This growth rate range brackets the average projected growth rate
5 presented on Attachment CEO-7. When the 5.0 to 5.5 percent growth rate is
6 added to the 5.92 percent dividend yield, and the yield adjustment factor is
7 included, the investor return requirement is 11.07 to 11.58 percent. This
8 calculation is developed as shown:

9	Yield	5.92%	5.92%
10	Yield Adjustment Factor, one-half		
11	the growth rate times the dividend		
12	yield	0.15%	0.16%
13	Expected Growth	<u>5.00%</u>	<u>5.50%</u>
14	Investor Required Return	11.07%	11.58%

15 Q. WHAT IS THE YIELD ADJUSTMENT FACTOR?

16 A. The yield adjustment factor is used to reflect the future payment of dividends in
17 the next 12 months. When an investor buys common shares in a company, it is
18 the future dividends that will be received, not past dividends. I have increased
19 the dividend by one-half the growth rate to reflect this. I use the yield adjustment
20 factor based on one-half the growth rate for two reasons. First, it represents a
21 reasonable rough approximation of the expected increase in dividends during the
22 year after a stock is purchased. Second, FERC has used it for many years and
23 thus it has become a part of investor expectations.

1 Q. WHAT DO THE YIELD PLUS GROWTH DATA SHOW FOR PINNACLE WEST
2 CAPITAL CORPORATION, THE PARENT OF APS?

3 A. As indicated on Attachment CEO-6, the dividend yield is 5.05 percent. This, in
4 combination with the projected growth rate of 5.0 percent indicates a market
5 return of approximately 10.18 percent. This includes a modest yield adjustment
6 factor of 13 basis points, but does not include any allowance for issuance costs
7 or for market pressure – both of which impact the final cost of equity.
8

9 VIII. VALIDATION OF DCF RESULTS

10 Q. PLEASE DESCRIBE YOUR RISK PREMIUM STUDY OF THE INVESTOR
11 RETURN REQUIREMENT YOU ESTIMATED FOR APS.

12 A. The risk premium approach, as discussed earlier in my testimony, involves
13 estimating how much greater is the return required by investors to invest in a
14 firm's common stock than to invest in its bonds. There are other ways of
15 measuring interest premiums, e.g., by reference to short-term Treasury bills.
16 However, because the cost of equity capital is a long-term concept, it is
17 appropriate to measure the risk premium in a case such as this using long-term
18 company bonds, i.e., bonds with maturity dates at least 10 years in the future.
19 The difficult question is how much of a premium over the bond yield should the
20 stock carry. In Stocks, Bonds, Bills and Inflation: 2003 Yearbook, Roger G.
21 Ibbotson has shown that common stocks have produced returns that average 6.0
22 percentage points more than corporate bonds. Ibbotson has been known as a
23 leading expert on the development of risk premia for more than 25 years. Adding
24 this figure to the average yield on Moody's Baa rated corporate bonds for the
25 April – May 2003 period of 6.6 percent produces an equity return of 12.6 percent.

1 Bond yield data are presented at Attachment CEO-1, page 4. I use the Baa
2 corporate bond yield data for APS because it represents the closet approximation
3 of the cost of long-term debt to APS that is currently available on the Fed's
4 website.

5 Q. WHAT IS YOUR OPINION REGARDING THE COST OF COMMON EQUITY
6 CAPITAL USING THE RISK PREMIUM APPROACH?

7 A. In my view, the risk premium approach indicates that the investor return
8 requirement to APS is 12.0 to 12.5 percent. This is a judgment based on the
9 average risk premium of 6.0 percent over Baa rated corporate bonds, reduced to
10 reflect a lower level of risk for APS relative to the average common stock return.

11 IX. RETURN ON COMMON EQUITY

12 Q. DOES THE COMPANY HAVE FINANCING COSTS?

13 A. Yes. A financing cost adjustment should be applied to the investor return
14 requirement in order to avoid dilution on a given issue. This can be seen by
15 using a simple example; assume that a utility has a book value of \$25.00 per
16 common share and financing costs are 5 percent of the issue price. If a return on
17 common equity exactly equal to the investors' requirement is authorized and
18 earned, the shares will trade at \$25.00. If new shares are issued, net proceeds
19 will be \$23.75 per share (\$25 times 95%); this, of course, dilutes the investment
20 of the existing shareholders. In order to avoid dilution, the share price must be
21 increased 5 percent; this is done by increasing the investors' required return by 5
22 percent.

23
24 Financing costs are relatively easy to estimate. Attachment CEO-8 presents
25 data on financing costs for electric and combination companies for the year 2002

1 and 2003. As shown, financing costs for the group averaged 3.149 percent. This
2 adjustment is not sufficient, however, to provide Pinnacle West with a reasonable
3 probability of issuing common shares at a price above book value because of
4 capital market fluctuations. The market-to-book ratio should be set high enough
5 to permit equity financing with net proceeds equal to or in excess of book under
6 most market conditions; otherwise, dilution will take place. Dilution is an
7 indication of returns that do not adequately compensate investors for risk.

8 Q. IS A MARKET-TO-BOOK ADJUSTMENT APPROPRIATE EVEN IF PINNACLE
9 WEST IS NOT PLANNING TO ISSUE COMMON SHARES?

10 A. Yes it is, for two reasons. First, the Hope case speaks in terms of the ability to
11 attract capital. The fact that a utility currently does not have an immediate need
12 for new capital does not mean that it does not need to maintain a position of
13 being able to attract capital on reasonable terms. This is especially important if
14 the Company is to be in a position to deal with unforeseen circumstances. Not
15 planning to issue common stock is not the same as not issuing common stock.
16 Of course, in the case of APS, its parent, Pinnacle West, must issue the common
17 stock and APS should be responsible for bearing a large portion of the cost of
18 accessing public equity markets through Pinnacle West.

19
20 Second, if a market-to-book adjustment is made only when a utility needs to go
21 to the capital market, rational investors will figure this out and the adjustment will
22 not produce the desired result. Suppose, for example, that a commission always
23 used a market-to-book adjustment of 5 percent and the shares traded at 5
24 percent above book value. Assume that a determination was made in a new rate
25 case that new shares would not have to be issued and no adjustment was made.

1 The price of the shares would then go to book value. If then, in a future case, it
2 was determined that external financing is necessary and a 5 percent market-to-
3 book adjustment is made, it would not produce the desired effect. The reason is
4 investors would know that the adjustment is only temporary and over the long
5 run, the 5 percent adjustment will not be made and must therefore be
6 compensated for (from the investors' perspective) by depressed market prices for
7 the Firm's equity.

8 Q. WHAT RETURN ON COMMON EQUITY DO YOU RECOMMEND IN THIS
9 CASE?

10 A. In my view, the cost of common equity should be between 11.25 to 11.75
11 percent. This recommendation is a judgment based on several considerations.
12 First, the market cost of equity is between 11.07 and 11.58 percent using a DCF
13 analysis and 12.0 to 12.5 percent using a risk premium approach. Second,
14 there is market pressure and market fluctuation associated with stock offerings
15 that should be compensated for in the return on equity. A return of 11.25 to
16 11.75 percent is a reasonable minimum.

17 Q. CAN YOU GET TO A RECOMMENDED RETURN ON COMMON EQUITY
18 CAPITAL FOR A UTILITY SUCH AS APS USING JUST A CALCULATION OR A
19 WORKPAPER TYPE OF ANALYSIS?

20 A. No. There are numerous judgments involved in the process. This includes
21 selection of methodology, implementation of methodology, choice of comparable
22 companies and measurement of the risk premium. With respect to methodology,
23 numerous methods are available including the DCF, earnings-price ratios,
24 comparable earnings and CAPM. Implementation involves use of measurement

1 period for the yield calculation, i.e., a day, a week, six weeks, six months. There
2 are numerous possibilities for comparable companies with respect to how many
3 electric versus combination companies and so on. The risk premium can be
4 estimated in numerous ways. Finally, when a number is ultimately estimated, it
5 can be adjusted up or down depending on a variety of risk factors. Estimating
6 the return on common equity is comparable in difficulty to estimating the growth
7 rate in GDP for the year ahead. There is no magic formula.
8

9 In this case we know that the number is above 11.07 percent before financing
10 costs and could well be above 12.5 percent based on general market
11 perceptions. A return of 11.25 to 11.75 percent is, in my view, a minimum range
12 that balances the consumer desire for low rates in the short-run with the need for
13 capital attraction in the long run.

14 Q. DOES THIS CONCLUDE YOUR PREPARED DIRECT TESTIMONY?

15 A. Yes, it does.

ARIZONA PUBLIC SERVICE COMPANY

Changes in the Consumer Price Index

<u>Year</u>	Percentage Change <u>In CPI 1/</u>
1990	6.1
1991	3.1
1992	2.9
1993	2.7
1994	2.7
1995	2.5
1996	3.3
1997	1.9
1998	1.6
1999	2.7
2000	3.4
2001	1.6
2002	2.4

1/ December to December Changes

Source: Economic Report of the President 2002, The Wall Street Journal,
January 17, 2002, p. A-2

ARIZONA PUBLIC SERVICE COMPANY

Changes in Real Gross Domestic Product
1990 - 2002

<u>Year 1/</u>	<u>Percentage Change</u> <u>In Real GDP</u>
1990	1.8
1991	-0.5
1992	3.0
1993	2.7
1994	4.0
1995	2.7
1996	3.6
1997	4.4
1998	4.3
1999	4.1
2000	3.8
2001	0.3
2002	2.4

1/ Year over year.

Source: Economic Report of the President, 2002, page 279. Revised 1998, 1999, 2000 and 2001 information from the Bureau of Economic Analysis, 2-28-02, Table 6. More recent data from The Wall Street Journal.

ARIZONA PUBLIC SERVICE COMPANY

Changes in Money Supply (M2)
1990 - 2002

<u>Year</u>	Percentage Change <u>In M2</u> <u>1/</u>
1990	3.8
1991	3.0
1992	1.6
1993	1.6
1994	0.4
1995	4.1
1996	4.7
1997	5.7
1998	8.7
1999	6.0
2000	6.1
2001	10.2
2002	6.3

1/ December to December changes

Source: Economic Report of the President, 2001, Barron's (2-11-02, p.MW49,
2-10-03, p. MW45.).

ARIZONA PUBLIC SERVICE COMPANY

Yields on Long-Term U.S. Treasury Bonds
And Corporate Bonds, 1990 – 2003 (To Date)

<u>Year</u>	<u>Long-Term Treasury Bonds</u>	<u>Moody's Corporate Bonds</u>	
		<u>Aaa</u>	<u>Baa</u>
1990	8.61	9.32	10.36
1991	8.12	8.77	9.80
1992	7.67	8.14	8.98
1993	6.59	7.22	7.90
1994	7.37	7.96	8.62
1995	6.88	7.59	8.20
1996	6.71	7.37	8.05
1997	6.61	7.26	7.86
1998	5.58	6.53	7.22
1999	5.87	7.04	7.87
2000	6.93	7.50	8.36
2001	6.20	7.08	7.95
2002	5.41	6.49	7.80
<u>2003</u>			
January	5.07	6.17	7.35
February	4.93	5.95	7.06
March	4.90	5.89	6.95
April	4.99	5.74	6.85
May	4.61	5.22	6.38

Source: Economic Report of the President, 2001,
Federal Reserve Statistical Release, January 8, 2002
February 25, 2002 and April 22, 2002. More current data
taken from the Fed's website. Treasury yields after March
2002 based on a 25 year composite.

ARIZONA PUBLIC SERVICE COMPANY

Selected Electric and Combination Companies
2002 Operating Revenues

<u>Company</u>	2002 Operating <u>Revenues</u> (000,000)
CINergy Corporation	11,053
IDACORP	1,311
OGE Energy Corporation	3,245
PPL Corporation	5,830
Progress Energy, Inc.	8,344
Public Service Enterprise Group	10,173
Pinnacle West Capital Corporation	2,836

Source: C.A. Turner Utility Reports, June 2003

ARIZONA PUBLIC SERVICE COMPANY

Selected Electric and Combination Companies
2003 Common Equity Ratios

<u>Company</u>	<u>Common Equity Ratio</u>
CINergy Corporation	46.0%
IDACORP	46.5
OGE Energy Corporation	43.0
PPL Corporation	30.0
Progress Energy, Inc.	42.5
Public Service Enterprise Group	26.5
Mean	39.1%
Median	42.8%
Pinnacle West Capital Corp.	50.0%

Source: The Value Line Investment Survey, Edition 3, various dates.

ARIZONA PUBLIC SERVICE COMPANY

Selected Electric and Combination Companies
Bond Ratings

COMPANY	(1)	(2)
	S&P	MOODY'S
CINergy Corporation	BBB+	A3
IDACORP	A	A2
OGE Energy Corporation	BBB+	Baa1
PPL Corporation	A-	A3
Progress Energy, Inc.	BBB+	A3
Public Service Ent. Group	A-	A3
Medians	A-/BBB+	A3
Pinnacle West Capital Corp.	A-	A3

Source: C.A. Turner Utility Reports, June 2003.

ARIZONA PUBLIC SERVICE COMPANY

Selected Electric and Combination Companies
Market-to-Book Ratios

<u>Company</u>	(1) <u>Market Price 1/</u>	(2) <u>Book Value 2/</u>	(3) <u>Market-to- Book Ratio</u>
CINergy Corp.	\$34.15	\$20.36	1.68
IDACORP	\$24.26	\$22.41	1.08
OGE Energy Corp.	\$19.14	\$12.25	1.56
PPL Corp.	\$36.36	\$14.89	2.44
Progress Energy, Inc.	\$42.72	\$28.53	1.50
Public Service Ent.Gp.	\$35.64	\$20.30	1.76
Mean			1.67
Median			1.62
Pinnacle West Capital Corp	\$33.69	\$29.43	1.14

1/ Market value data from Attachment CEO-6.

2/ Book value data from C.A. Turner Utility Reports, June 2003.

ARIZONA PUBLIC SERVICE COMPANY

Selected Electric and Combination Companies
 Dividend Yields
December 2002 – May 2003

<u>Company</u>	(1)	(2)		(3)	(4)	(5)
	<u>High</u>	<u>Market Price</u>	<u>Per Share</u>	<u>Average</u>	<u>Indicated Dividend Rate</u>	<u>Dividend Yield</u>
CINergy Corp.	\$38.53	\$29.77		\$34.15	\$1.84	5.39 %
IDACORP	\$27.92	\$20.60		\$24.26	\$1.86	7.67 %
OGE Energy Corp.	\$22.25	\$16.02		\$19.14	\$1.33	6.95 %
PPL Corp.	\$41.49	\$31.22		\$36.36	\$1.52	4.18 %
Progress Energy, Inc	\$48.00	\$37.45		\$42.72	\$2.24	5.24 %
Public Service Ent.	\$43.40	\$27.89		\$35.64	\$2.16	6.06 %
Mean						5.92 %
Median						5.73 %
Pinnacle West Capital	\$39.04	\$28.34		\$33.69	\$1.70	5.05 %

Source: Standard & Poor's Stock Guides and The Wall Street Journal

ARIZONA PUBLIC SERVICE COMPANY

Selected Electric and Combination Companies
Projected Earnings Growth Rates

<u>COMPANY Name</u>	<u>5 Year Mean Estimated GROWTH RATES</u>
CINergy Corporation	4.5%
IDACORP	7.0%
OGE Energy Corporation	3.5%
PPL Corporation	5.9%
Progress Energy, Inc.	5.0%
Public Service Enterprise Group	5.0%
Mean	5.2%
Median	5.0%
Pinnacle West Capital Corporation	5.0%

Source: First Call Earnings Estimates, accessed May 27, 2003 through Yahoo Finance.

ARIZONA PUBLIC SERVICE COMPANY

Electric Utility Financing Costs, 2002-2003

<u>Company</u>	<u>Amount (\$000)</u>	<u>Commission in Percent</u>
FPL Group	500,000	3.000
Xcel Energy	450,000	3.244
TXU Corporation	562,650	3.001
FPL Group	723,000	3.002
DQE	202,500	3.748
DTE Energy	237,875	3.250
TECO Energy	310,500	3.000
AEP	654,400	3.000
Ameren	294,000	3.262
PPL Corporation	442,250	3.151
Duke Energy	999,999	2.500
PSE&G	398,250	3.250
Puget Energy	207,000	3.382
MDU	100,800	3.000
TXU Corporation	450,485	3.246
Great Plains	132,000	3.750
Progress Energy	614,673	2.387
Pinnacle West Capital	206,482	3.500
AVERAGE COST		<u>3.149%</u>

Source: Public Utility Financing Tracker, February 2003, information provided by APS.